

Poly Mart

A Bi-Monthly Magazine for Polymer & Rubber Industries

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SPECIAL FEATURE

From Ancient Glass Fibres to Modern Composite Technology

Plastic has become one of the most widely used materials in human history. Lightweight, durable, versatile, and inexpensive, it revolutionized industries ranging from packaging and construction to healthcare and transportation, itching, and emergency evacuation.

The Science, Evolution, and Impact of the World's Most Versatile Material

Plastics are among the most versatile and widely used materials in the modern world, playing a vital role across industries such as packaging, healthcare, automotive, construction, electronics, and agriculture.

The Evolution of Currency: How Polymer Banknotes Revolutionised Modern Money

Polymer banknotes represent a major advancement in currency technology, offering a more secure, durable, and cost-effective alternative to traditional cotton-based paper notes.

INTERVIEWS

AVI Global Plast Pvt. Ltd.

AVI Global Plast is guided by a legacy of over 25 years of entrepreneurship, technology adoption and sustainable thinking...

JJ Plastalloy Pvt. Ltd.

JJ Plastalloy focuses on customized, high-performance material solutions, sustainability initiatives, and innovation ...



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Concept of the wrapper :

Polymers offer significant ecological advantages, highlighted by extended lifespan, low energy use, and zero corrosion. They outperform traditional materials through resource efficiency, leak prevention, and full recyclability.

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EDITOR'S NOTE

Dear Friends and Colleagues,

We appreciate the opportunity to serve you.

India's plastics industry continues to be one of the fastest-growing manufacturing sectors, with the domestic market estimated to exceed US\$50 billion and expected to expand steadily over the coming years. From automotive and healthcare to infrastructure, electronics, agriculture, and packaging, plastics remain indispensable to industrial development. At the same time, the sector is embracing a new era of sustainability through advanced recycling, circular economy initiatives, lightweight materials, and responsible product design.

Government regulations on plastic waste management and Extended Producer Responsibility (EPR) are encouraging companies to rethink manufacturing processes and invest in recyclable, reusable, and environmentally responsible solutions. Although volatility in raw material prices, regulatory compliance, and global competition continue to influence profitability, the industry's innovation capabilities and expanding domestic demand present enormous opportunities for long-term growth.

POLYMART will continue to serve as a trusted platform for industry leaders by delivering insightful editorial content, market intelligence, technological developments, and policy updates that shape the future of plastics manufacturing.

Best Regards,

Venkat
Editor





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A Bimonthly Magazine for Polymer & Plastics Industries

History

FROM ANCIENT GLASS FIBRES TO MODERN COMPOSITE TECHNOLOGY

Plastic has become one of the most widely used materials in human history. Lightweight, durable, versatile, and inexpensive, it revolutionized industries ranging from packaging and construction to healthcare and transportation. However, the rapid growth of plastic production also created a significant environmental challenge: plastic waste.

Today, recycling is considered one of the most important solutions for reducing plastic pollution and conserving natural resources. Yet the journey of plastic recycling spans more than half a century and has evolved through numerous technological advancements. From simple manual sorting operations to highly automated recycling plants equipped with artificial intelligence and optical scanners, the recycling industry has undergone a remarkable transformation.



The Evolution of a Revolutionary Material

Fiberglass has become one of the most important composite materials in modern engineering, supporting industries ranging from construction and transportation to aerospace, renewable energy, marine, and consumer products. Known for its excellent strength-to-weight ratio, corrosion resistance, durability, and design flexibility, fiberglass has transformed the way engineers develop lightweight and high-performance structures.

Although fiberglass appears to be a modern invention, its origins are connected to centuries-old experiments with glass fibres. The journey from decorative glass threads created by ancient craftsmen to today's advanced fibre-reinforced polymer (FRP) composites represents a remarkable story of scientific discovery, industrial innovation, and continuous material development.

Ancient Discoveries of Glass Fibres

The history of fiberglass begins long before the modern industrial era. Ancient civilisations, including the Egyptians and Phoenicians, experimented with glass production and discovered that molten glass could be drawn into thin fibres. These early glass fibres were mainly used for decorative purposes, artistic designs, and ornamental applications rather than structural engineering. At that time, producing fine and consistent glass fibres was extremely challenging. Manufacturing techniques were limited, and there was no practical method to produce large quantities of strong, uniform fibres. As a result, glass fibres remained primarily a specialised craft material rather than an industrial product.

The potential of glass fibres remained largely unexplored until advances in chemistry, manufacturing, and industrial processes created new opportunities during the nineteenth and twentieth centuries.



Scientific Progress in the 19th Century

The Industrial Revolution brought significant developments in glass manufacturing technology. Researchers began exploring ways to produce thinner and stronger glass fibres for commercial applications. During the nineteenth century, improvements in glass processing enabled the production of glass wool and fibre-like materials. These developments demonstrated that glass could be transformed into lightweight fibrous structures with useful insulation properties.

Glass fibres gradually attracted attention because of their unique characteristics:

- Resistance to heat and chemicals
- Non-combustible nature
- Lightweight structure
- Good tensile strength
- Electrical insulation properties

However, producing continuous fibres suitable for reinforcement applications remained a major technical challenge.

The Birth of Modern Fiberglass Technology

The modern fiberglass industry began developing rapidly during the early twentieth century when researchers discovered improved methods for producing fine glass filaments.

One important breakthrough occurred in the 1930s when researchers working with glass manufacturing processes developed techniques capable of producing continuous glass fibres. These innovations allowed manufacturers to create stronger and more consistent fibres that could be woven into fabrics or combined with resin systems to form composite materials.

The development of synthetic resins was another critical milestone. Glass fibres alone provide strength, but when combined with polymer resins, they create a composite material where the fibres provide reinforcement and the resin holds the structure together.

This combination created Glass Fibre Reinforced Polymer (GFRP), commonly known as fiberglass.

Commercial Development and Industrial Expansion

The 1930s marked a turning point for fiberglass as companies began commercialising glass fibre production. Partnerships between glass manufacturers and research organisations accelerated the development of industrial fiberglass products. Owens Corning, formed through collaboration between Owens-Illinois and Corning Glass Works, played a significant role in advancing fiberglass manufacturing and commercial applications.

Initially, fiberglass was widely used for insulation because of its excellent thermal properties. However, engineers soon recognised its potential as a structural reinforcement material.



The combination of glass fibres and polymer resins offered several advantages over traditional materials:

- Lower weight compared with metals
- High resistance to corrosion
- Excellent durability
- Reduced maintenance requirements
- Ability to create complex shapes

These benefits opened new opportunities in industries where lightweight and strong materials were increasingly required.

Fiberglass During World War II

World War II accelerated the development and adoption of fiberglass technology. The demand for lightweight, durable, and non-metallic materials increased significantly, especially for military applications. Fiberglass composites were used in applications such as aircraft components, radar equipment housings, protective structures, and specialised military equipment. The material's ability to allow electromagnetic signals to pass through made it particularly valuable for radar-related applications. The success of fiberglass during this period demonstrated that composite materials could replace traditional materials in demanding environments. Following the war, fiberglass technology moved from military applications into commercial markets, beginning a new era of growth.

Sustainability, Emerging Innovations, and the Future of Fiberglass

As industries continue to seek materials that combine strength, lightweight performance, and long-term durability, fiberglass remains one of the most valuable engineering materials available. Its unique combination of mechanical properties, corrosion resistance, and design flexibility has secured its place in sectors ranging from renewable energy and infrastructure to transportation and advanced manufacturing. Today, researchers and manufacturers are focused on making fiberglass not only more efficient but also more sustainable, ensuring it continues to meet the evolving demands of a circular and environmentally conscious economy.

Fiberglass in the Age of Sustainability

Sustainability has become a key driver of innovation in the composites industry. While fiberglass products are renowned for their long service life, reducing the environmental impact of their production and end-of-life management has become an important industry objective. Manufacturers are investing in energy-efficient glass melting technologies, improved furnace designs, and cleaner production processes to reduce greenhouse gas emissions. Many facilities are also incorporating recycled glass, known as cullet, into the manufacturing process, helping to conserve raw materials and lower energy consumption. In addition, resin manufacturers are developing bio-based and low-emission resin systems that reduce reliance on fossil-derived chemicals while maintaining the performance required for demanding applications.



Recycling and Circular Economy Initiatives

Early washing systems consisted of tanks, drums, and mechanical agitators.

Plastic flakes were submerged in water and agitated to remove contaminants. Floating and sinking techniques were often used to separate different plastic types based on density.

Although basic by modern standards, these systems significantly improved the quality of recycled plastic.

Extruders became one of the most important machines in plastic recycling.

An extruder works by: Unlike metals, fiberglass composites are more challenging to recycle because they combine glass fibres with thermosetting resins that cannot simply be melted and reformed. However, significant progress has been made in developing recycling technologies that recover valuable materials from end-of-life composite products.

Several recycling methods are currently being explored and commercialised:

- Mechanical recycling, where composite waste is ground into fine particles for use as fillers in construction materials or new composite products.
- Thermal recycling, which uses controlled heat to separate fibres from resin while recovering energy from the polymer matrix.
- Chemical recycling, an emerging technology that breaks down resin systems to recover clean glass fibres and reusable chemical components.

Recovered fiberglass materials are increasingly finding applications in cement production, automotive components, infrastructure products, and secondary composite materials, supporting the transition toward a more circular economy.



Expanding Role in Renewable Energy

One of the fastest-growing applications for fiberglass is the renewable energy sector. Wind turbine blades rely heavily on fiberglass composites because they provide the strength and stiffness needed to withstand continuous mechanical stress while remaining lightweight enough for efficient operation.

As wind turbines become larger and more powerful, advanced fiberglass composites continue to evolve to meet higher performance requirements. Hybrid reinforcement systems combining fiberglass with carbon fibre are also being developed to optimise weight, strength, and manufacturing costs. Fiberglass is also used in solar panel mounting systems, electrical insulation components, and energy infrastructure where corrosion resistance and durability are essential.

Advancing Transportation and Infrastructure

1. The global transportation industry is increasingly adopting fiberglass composites to reduce vehicle weight and improve fuel efficiency. In automotive manufacturing, fiberglass is used in body panels, bumpers, roof systems, battery enclosures, and interior components. Lightweight composite structures contribute to lower fuel consumption in conventional vehicles and increased driving range in electric vehicles.
2. In rail transportation, fiberglass components help reduce maintenance while improving passenger comfort and corrosion resistance. Marine manufacturers continue to rely on fiberglass for boat hulls, decks, and offshore structures due to its excellent resistance to seawater and harsh environmental conditions.
3. Civil engineering projects are also benefiting from fiberglass reinforcement. Glass Fibre Reinforced Polymer (GFRP) bars and structural profiles are increasingly replacing traditional steel reinforcement in bridges, tunnels, coastal infrastructure, and chemical processing facilities where corrosion poses a significant challenge.

Smart Manufacturing and Digital Innovation

The future of fiberglass manufacturing is being shaped by Industry 4.0 technologies. Automation, robotics, artificial intelligence, and digital quality-control systems are improving production efficiency while reducing material waste.

Modern manufacturing plants use advanced sensors and computer-controlled processes to monitor fibre alignment, resin distribution, curing conditions, and product quality in real time. Digital twin technology and predictive maintenance systems are helping manufacturers optimise production and extend equipment life.

Three-dimensional printing technologies are also opening new possibilities for composite manufacturing, enabling the production of customised molds, tooling, and prototype components with greater speed and precision.



Fiberglass in Emerging Industries

Research continues to expand the potential of fiberglass across new and emerging sectors. Scientists are developing advanced glass fibres with enhanced mechanical properties, improved chemical resistance, and specialised coatings for demanding applications.

Future opportunities include:

- Lightweight components for electric and autonomous vehicles.
- Hydrogen storage and transportation systems.
- Aerospace structures with improved fuel efficiency.
- Modular construction materials for sustainable buildings.
- High-performance sporting equipment.
- Advanced medical imaging and healthcare devices.
- Telecommunications infrastructure supporting next-generation networks.

As these industries evolve, fiberglass composites are expected to play an increasingly important role in enabling innovative engineering solutions

Looking Ahead.

More than a century after its commercial development, fiberglass continues to demonstrate remarkable versatility and resilience. What began as an experimental glass fibre has grown into one of the world's most important composite materials, supporting countless products and critical infrastructure across the globe.

Ongoing investments in sustainable manufacturing, recyclable composite technologies, advanced material science, and digital production methods are ensuring that fiberglass remains relevant in an era focused on environmental responsibility and technological progress.

With increasing demand for lightweight, durable, and energy-efficient materials, fiberglass is well positioned to support future innovations in transportation, renewable energy, infrastructure, and industrial manufacturing. Its unique balance of performance, reliability, and adaptability ensures that it will remain a cornerstone of modern engineering for decades to come.

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India's Plastics Industry 2026: Balancing Industrial Growth with Circular Sustainability

India's plastics industry continues to be one of the country's most dynamic and strategically important manufacturing sectors, contributing significantly to industrial production, employment generation, exports, and economic development.



With applications spanning automotive, healthcare, agriculture, construction, electronics, consumer goods, textiles, renewable energy, aerospace, and packaging, plastics have evolved far beyond conventional packaging materials to become indispensable engineering solutions that enable modern manufacturing.

As India strengthens its position as a global manufacturing hub under initiatives such as Make in India, Atmanirbhar Bharat, and Production Linked Incentive (PLI) schemes, the plastics industry is witnessing rapid technological transformation. The focus is shifting from volume-driven production toward high-value manufacturing, sustainable materials, advanced recycling, and digital manufacturing systems. Sustainability, circular economy principles, resource efficiency, and innovation are increasingly shaping investment decisions and long-term business strategies across the sector.

A Backbone for Multiple Industries

The versatility of plastics makes them one of the most widely used materials across industrial sectors. Their lightweight nature, corrosion resistance, design flexibility, durability, and cost-effectiveness have enabled manufacturers to replace traditional materials such as metals, glass, and wood in numerous applications.

The automotive industry continues to increase the use of engineering plastics to reduce vehicle weight, improve fuel efficiency, enhance passenger safety, and support the transition toward electric mobility. Components such as dashboards, bumpers, battery housings, lighting systems, interior trims, and under-the-hood applications increasingly rely on advanced polymers capable of withstanding high temperatures and mechanical stress.

In healthcare, demand for medical-grade plastics has grown substantially due to expanding healthcare infrastructure and rising demand for disposable medical products. Syringes, IV components, diagnostic equipment, pharmaceutical packaging, laboratory consumables, surgical instruments, and medical devices all depend heavily on high-performance polymers that meet stringent safety and regulatory standards.

Agriculture also remains a significant consumer of plastics through irrigation systems, greenhouse films, mulch films, water storage tanks, pipes, crop protection materials, and precision farming equipment. These products contribute to improved water conservation, higher crop yields, and enhanced agricultural productivity.

The construction and infrastructure sectors utilize plastics extensively in pipes, fittings, insulation materials, doors, windows, flooring, roofing membranes, cable protection systems, and water management solutions. As urbanization accelerates and infrastructure investments continue to expand, demand for durable polymer-based construction materials is expected to remain strong.

Packaging Continues to Lead Demand

Packaging remains the largest consumer segment within India's plastics industry, accounting for a substantial share of overall polymer consumption. Growth in food processing, pharmaceuticals, beverages, personal care products, household goods, organized retail, and e-commerce continues to drive demand for innovative packaging solutions.

Modern packaging requirements extend beyond simple product protection. Manufacturers are increasingly expected to deliver packaging that enhances shelf life, improves product safety, supports traceability, enables convenient transportation, and provides attractive consumer appeal. Flexible packaging, rigid containers, multilayer films, thermoformed products, and protective packaging solutions continue to evolve with changing consumer preferences. The rapid expansion of online retail has further accelerated demand for lightweight, durable, tamper-evident, and protective packaging capable of ensuring safe product delivery throughout increasingly complex logistics networks.

Rising Demand for Advanced Polymers

Industrial growth is creating significant opportunities for high-performance polymers and engineering plastics capable of delivering superior mechanical, thermal, and chemical performance.

Industries including aerospace, electronics, renewable energy, telecommunications, medical devices, and electric vehicles require specialized materials that offer excellent dimensional stability, flame resistance, electrical insulation, impact resistance, and long service life.

Demand is increasing for engineering materials used in precision moulding, electronic connectors, battery systems, electrical enclosures, industrial machinery, consumer electronics, and smart devices. These advanced materials enable manufacturers to produce lighter, stronger, and more durable products while improving overall manufacturing efficiency.

Digital Transformation of Manufacturing

The plastics processing industry is embracing Industry 4.0 technologies to improve productivity, quality, and operational efficiency. Manufacturers are increasingly investing in automation, robotics, artificial intelligence, machine learning, and data-driven production systems that enable real-time process monitoring and predictive maintenance.

The plastics industry is entering a new era where sustainability and profitability must advance together. Recycling, innovation, advanced materials, and responsible manufacturing will define future success. Companies investing today in circular economy solutions are likely to become tomorrow's industry leaders, proving that plastics can remain indispensable while becoming significantly more sustainable.

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The Science, Evolution, and Impact of the World's Most Versatile Material

Plastics are among the most versatile and widely used materials in the modern world, playing a vital role across industries such as packaging, healthcare, automotive, construction, electronics, and agriculture. Made from polymers, plastics are classified into thermoplastics and thermosetting plastics, each offering unique properties for specific applications. Common materials like polyethylene, polypropylene, PVC, PET, and engineering plastics such as ABS, polycarbonate, and nylon provide solutions ranging from everyday consumer products to high-performance industrial components. Manufactured using advanced processes including injection moulding, extrusion, blow moulding, and thermoforming, plastics combine lightweight design, durability, chemical resistance, and cost-effectiveness. As the industry advances, innovations in recyclable materials, bio-based polymers, and sustainable manufacturing are driving the transition toward a circular economy, ensuring plastics continue to support technological progress while addressing environmental challenges.



What Are Plastics? Their History, Chemistry, and Classification

Plastics have become one of the most transformative materials ever developed by humanity. From food packaging and medical devices to automobiles, aerospace components, construction materials, and consumer electronics, plastics have revolutionised modern manufacturing and everyday life. Their versatility, lightweight nature, durability, and cost-effectiveness have made them indispensable across virtually every industrial sector.

Today, global plastic production exceeds hundreds of millions of tonnes annually, supporting industries that rely on materials capable of meeting demanding performance requirements while remaining economically viable. Advances in polymer science continue to expand the capabilities of plastics, enabling innovations in healthcare, renewable energy, transportation, and sustainable packaging.

Despite their widespread use, plastics are often misunderstood. They are not a single material but a broad family of synthetic and semi-synthetic polymers, each engineered to possess specific mechanical, thermal, and chemical properties. Understanding how plastics are made, classified, and utilised provides valuable insight into why they have become such an essential part of modern society.

What Are Plastics?

Plastics are materials composed primarily of polymers—large molecules formed by linking thousands of smaller repeating units known as monomers. These long molecular chains give plastics their unique combination of strength, flexibility, durability, and processability. The word polymer originates from the Greek words poly, meaning "many," and meros, meaning "parts." During polymerisation, countless monomer molecules chemically bond together to create extensive molecular networks. By selecting different monomers and controlling the polymerisation process, scientists can produce plastics with vastly different characteristics.

Some plastics are rigid and capable of supporting heavy structural loads, while others are soft, elastic, or transparent. Certain plastics withstand extremely high temperatures, whereas others are designed for flexibility, impact resistance, or electrical insulation. In addition to polymers, most commercial plastics contain carefully selected additives, including stabilisers, pigments, fillers, plasticisers, flame retardants, UV inhibitors, and reinforcing fibres. These additives enhance performance, improve appearance, increase durability, and tailor the material to specific industrial applications.

The Evolution of Plastics

Although natural polymers such as rubber, cellulose, silk, and wool have been used for centuries, the development of synthetic plastics marked a turning point in materials science.

During the nineteenth century, inventors sought alternatives to scarce natural materials such as ivory, shellac, and tortoiseshell. Early innovations demonstrated that modified natural substances could be moulded into useful products, opening the door to the development of entirely synthetic materials.

A major breakthrough occurred in the early twentieth century with the invention of Bakelite, the world's first fully synthetic plastic. Bakelite possessed excellent electrical insulation, heat resistance, and mechanical strength, making it ideal for electrical components, telephones, radios, and household appliances. Its commercial success demonstrated that synthetic polymers could outperform many traditional materials.

The decades that followed witnessed rapid advances in polymer chemistry. Researchers developed polyethylene, polyvinyl chloride (PVC), polystyrene, nylon, polypropylene, polyester, and numerous other plastics that transformed industries worldwide.

Following World War II, improvements in petrochemical production enabled large-scale manufacturing of plastics at relatively low cost. Their combination of affordability, durability, and ease of processing accelerated their adoption across manufacturing, packaging, transportation, healthcare, agriculture, and consumer goods.

Today, plastics continue to evolve through innovations in bio-based polymers, recyclable materials, advanced composites, and high-performance engineering plastics.

How Plastics Are Made

The production of plastics begins with raw materials, most commonly derived from petroleum or natural gas. These hydrocarbons are processed in refineries and petrochemical plants to produce basic chemical building blocks such as ethylene, propylene, styrene, and vinyl chloride.



These compounds serve as monomers for polymerisation—the chemical process that joins individual molecules into long polymer chains. Several polymerisation methods are used depending on the desired material properties, including addition polymerisation and condensation polymerisation.

After polymer formation, manufacturers blend the resin with specialised additives to achieve specific performance characteristics. For example:

- Colour pigments provide aesthetic appeal.
- UV stabilisers protect against sunlight degradation.
- Plasticisers improve flexibility.
- Flame retardants enhance fire resistance.
- Glass fibres increase mechanical strength.
- Antioxidants extend service life.

The finished material is typically converted into small pellets or granules that can be transported to manufacturers. These pellets are then melted and shaped using processing techniques such as injection moulding, extrusion, blow moulding, thermoforming, or rotational moulding.

The Two Main Categories of Plastics

Although thousands of plastic materials exist, they generally fall into two primary categories based on how they respond to heat.

Thermoplastics

Thermoplastics soften when heated and harden upon cooling. This process can be repeated many times without significantly altering the material's chemical structure, allowing thermoplastics to be reshaped and, in many cases, recycled.

Their excellent processability has made thermoplastics the most widely used plastics worldwide.

Common thermoplastics include:

- Polyethylene (PE)
- Polypropylene (PP)
- Polyvinyl Chloride (PVC)
- Polystyrene (PS)
- Polyethylene Terephthalate (PET)
- Acrylonitrile Butadiene Styrene (ABS)
- Polycarbonate (PC)
- Nylon (Polyamide)

These materials are found in packaging, automotive parts, electrical products, pipes, household goods, textiles, and medical equipment.

Thermosetting Plastics

Thermosetting plastics, or thermosets, undergo an irreversible chemical reaction during curing. Once hardened, they cannot be melted and reshaped because their polymer chains become permanently cross-linked.

Thermosets generally offer superior heat resistance, dimensional stability, and chemical resistance, making them suitable for demanding engineering applications.

Examples include:

- Epoxy resins
- Phenolic resins
- Melamine formaldehyde
- Unsaturated polyester resins
- Polyurethane thermosets

These materials are widely used in electronics, aerospace, industrial machinery, automotive components, adhesives, and composite structures.

Why Plastics Became Essential

Few materials offer the versatility of plastics. Their widespread adoption stems from several important advantages:

- Lightweight construction reduces transportation costs and improves fuel efficiency.
- Excellent corrosion resistance ensures long service life in harsh environments.
- High strength-to-weight ratio enables durable yet lightweight products.
- Electrical insulation makes plastics indispensable in electrical and electronic equipment.
- Design flexibility allows manufacturers to create complex shapes with precision.
- Cost-effective production supports mass manufacturing across numerous industries.

Because their properties can be precisely engineered, plastics have become an essential material for solving complex engineering challenges while supporting innovation in sectors ranging from healthcare and renewable energy to food preservation and advanced manufacturing.

As industries increasingly seek materials that balance performance with sustainability, polymer science continues to drive the development of new plastic technologies capable of meeting evolving environmental and economic demands.

Major Types of Plastics, Processing Technologies, and Industrial Applications

While all plastics are polymers, each type possesses distinct physical, chemical, and mechanical properties that determine its suitability for specific applications. Advances in polymer science have enabled manufacturers to develop materials ranging from lightweight packaging films to high-performance engineering plastics capable of withstanding extreme temperatures, chemicals, and mechanical stress. Selecting the appropriate plastic is a critical step in product design, influencing performance, cost, sustainability, and manufacturing efficiency.

Commodity Plastics: The Backbone of Everyday Products

Commodity plastics are produced in large volumes and are valued for their affordability, ease of processing, and versatility. They account for the majority of global plastic production and are widely used in packaging, household goods, consumer products, and construction.

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Polyethylene (PE)

Polyethylene is the world's most widely used plastic due to its excellent flexibility, chemical resistance, and moisture barrier properties. It is available in several grades, including Low-Density Polyethylene (LDPE), High-Density Polyethylene (HDPE), and Linear Low-Density Polyethylene (LLDPE).

Common applications include:

- Shopping bags and carry bags
- Food packaging films
- Milk and detergent bottles
- Water storage containers
- Agricultural films
- Pipes and cable insulation

Its lightweight nature and resistance to chemicals make polyethylene indispensable across numerous industries.

Polypropylene (PP)

Polypropylene offers an excellent balance of strength, stiffness, fatigue resistance, and heat tolerance. It is particularly suitable for products requiring repeated flexing, making it one of the most versatile thermoplastics available.

Applications include:

- Food storage containers
- Automotive interior components
- Medical syringes
- Household appliances
- Textiles and woven sacks
- Caps and closures
- Reusable packaging

Its resistance to fatigue allows components such as hinged lids to withstand thousands of opening and closing cycles without failure.

Polyvinyl Chloride (PVC)

PVC is recognised for its durability, weather resistance, flame-retardant properties, and electrical insulation. It can be manufactured in both rigid and flexible forms depending on the additives used during production.

Rigid PVC is commonly used for:

- Water supply pipes
- Window frames
- Building profiles
- Industrial fittings

Flexible PVC finds applications in:

- Medical tubing
- Electrical cables
- Flooring
- Synthetic leather
- Inflatable products

The material's versatility has made it one of the most widely used plastics in the construction sector.

Polystyrene (PS)

Polystyrene is valued for its clarity, rigidity, and ease of moulding. It is available in both solid and expanded forms.

Typical applications include:

- Disposable food containers
- Protective packaging
- Laboratory equipment
- Consumer electronics housings
- Thermal insulation boards
- Display products

Expanded polystyrene (EPS) is particularly effective as a lightweight insulation material and shock-absorbing packaging.

Polyethylene Terephthalate (PET)

PET combines excellent strength, transparency, and gas barrier properties, making it ideal for food and beverage packaging.

It is widely used for:

- Soft drink bottles
- Mineral water bottles
- Edible oil containers
- Food trays
- Textile fibres (polyester)
- Packaging films

Its widespread recyclability has also made PET one of the most recovered plastic materials globally.

Engineering Plastics: Designed for High Performance

Engineering plastics are developed to deliver superior mechanical strength, dimensional stability, wear resistance, and heat tolerance. Although more expensive than commodity plastics, they provide outstanding performance in demanding industrial environments.

Acrylonitrile Butadiene Styrene (ABS)

ABS combines toughness, impact resistance, and an attractive surface finish.

Applications include:

- Automotive dashboards
- Consumer electronics
- Protective helmets
- Power tool housings
- Toys
- Luggage

Its ease of moulding and durability have made it a preferred material for precision components.

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THE EVOLUTION OF CURRENCY: HOW POLYMER BANKNOTES REVOLUTIONISED MODERN MONEY



Polymer banknotes represent a major advancement in currency technology, offering a more secure, durable, and cost-effective alternative to traditional cotton-based paper notes. Developed in Australia in response to growing counterfeiting concerns and the limitations of conventional banknotes, polymer currency is manufactured using biaxially oriented polypropylene (BOPP), a high-performance plastic that resists moisture, tearing, and everyday wear. The introduction of transparent security windows and other advanced anti-counterfeiting features revolutionised banknote design, significantly improving authentication and extending the lifespan of circulating currency. Since Australia issued the world's first polymer banknote in 1988, the technology has been adopted by numerous countries, establishing a new global standard for secure and long-lasting banknotes while demonstrating how materials science can transform modern currency systems.

For centuries, paper currency has played a central role in global commerce, serving as a trusted medium of exchange for governments, businesses, and consumers alike. While traditional paper banknotes have continuously evolved with new printing techniques and security measures, they have always faced two persistent challenges—counterfeiting and limited durability. Frequent replacement of worn-out notes places a financial burden on central banks, while increasingly sophisticated counterfeit technologies threaten public confidence in cash.

These challenges prompted scientists and currency experts to search for a fundamentally different solution. Rather than simply improving paper, researchers explored whether an entirely new material could transform the future of banknotes. Their efforts eventually led to one of the most significant innovations in modern currency: polymer banknotes. Today, polymer banknotes are used in dozens of countries, offering enhanced security, longer circulation life, and improved resistance to everyday wear and tear. What began as a scientific research project has grown into a global technology adopted by central banks around the world, reshaping how physical money is designed and protected.

Why Traditional Paper Banknotes Reached Their Limits

Conventional banknotes are primarily manufactured from cotton-based paper rather than wood pulp. Cotton fibres provide greater strength and flexibility, making notes more durable than ordinary paper. Nevertheless, even cotton-based currency gradually deteriorates as it passes through countless transactions.

Every fold, crease, and exposure to moisture or dirt contributes to the gradual degradation of a note. In countries where cash remains the primary mode of payment, banknotes circulate rapidly, accelerating wear and increasing replacement costs. Central banks must continuously print new notes to replace damaged ones, creating recurring production and distribution expenses.

Counterfeiting presents an even greater challenge. Advances in digital imaging, high-resolution scanners, and colour printing have made it increasingly difficult to distinguish genuine notes from sophisticated counterfeit copies. Although governments have introduced features such as watermarks, security threads, microprinting, and special inks, counterfeiters continually adapt to new technologies.

By the late twentieth century, many experts recognised that incremental improvements to paper currency would not be sufficient to meet future security demands. A completely different substrate was needed—one capable of integrating advanced security features while remaining durable enough for everyday use.

Australia's Search for a Better Banknote

Australia emerged as the pioneer in developing polymer currency through a collaboration between scientists, government agencies, and the nation's central bank.

During the 1960s and 1970s, Australia experienced growing concerns about counterfeit currency. At the same time, researchers were making rapid advances in polymer science, opening new possibilities for high-performance plastic materials with exceptional durability and flexibility.

Scientists began investigating whether specially engineered plastic films could serve as a substrate for banknotes. Unlike ordinary plastics, these advanced polymers could be designed to withstand repeated folding, resist moisture, and provide a stable surface for sophisticated printing technologies.

The concept represented a significant departure from centuries of paper-based currency production. Instead of relying on cotton fibres, researchers envisioned transparent polymer films capable of incorporating security features directly into the material itself.

This idea laid the foundation for one of Australia's most influential scientific achievements.



Scientific Innovation Meets National Security

Developing polymer banknotes required expertise from multiple disciplines, including materials science, chemistry, precision printing, engineering, and security design. Researchers experimented with various polymer formulations before identifying biaxially oriented polypropylene (BOPP) as a suitable material. This specialised polymer offers remarkable strength while remaining lightweight and flexible. Its smooth surface also enables highly detailed printing, making intricate designs sharper and more consistent than many conventional printing methods.

Unlike paper, polymer does not absorb moisture, making banknotes resistant to accidental washing, spills, and humid environments. The material also resists tearing and retains its structural integrity after years of circulation.

Perhaps the greatest breakthrough came from the material's ability to incorporate transparent sections directly into the banknote. These clear windows could accommodate highly sophisticated security features that would be nearly impossible to reproduce using traditional paper-based printing techniques.



The transparent window soon became one of the defining characteristics of polymer currency and remains among its most recognisable security elements today.

A Historic Milestone in Currency Technology

After years of research, testing, and refinement, Australia introduced the world's first circulating polymer banknote in 1988, commemorating the nation's Bicentenary.

The launch represented a landmark achievement in both scientific innovation and currency security. It demonstrated that polymer could successfully replace paper while providing superior durability and significantly enhanced protection against counterfeiting.

The success of the commemorative note encouraged further development, leading Australia to progressively convert its entire banknote series to polymer. The transition attracted widespread international attention, with central banks around the world closely monitoring its performance.

As the notes remained cleaner, lasted considerably longer in circulation, and proved more resistant to counterfeiting, polymer currency quickly gained recognition as a practical solution for modern cash management.

Setting the Stage for Global Adoption

Australia's pioneering work established the foundation for a new generation of secure banknotes. The innovation demonstrated that advances in materials science could solve longstanding challenges in currency design while reducing replacement costs and improving public confidence.

Over the following decades, the technology expanded beyond Australia, with countries across Asia, Europe, Africa, and the Americas exploring polymer banknotes as part of their own currency modernisation strategies.

The success of polymer currency also inspired continuous improvements in security technology, manufacturing techniques, and environmental performance, ensuring that polymer banknotes would remain at the forefront of currency innovation.



The Science, Manufacturing Process, and Advanced Security Features

The success of polymer banknotes extends far beyond the choice of material. Their effectiveness lies in a sophisticated combination of advanced polymer science, precision engineering, secure printing technologies, and innovative design. Every polymer note is the result of years of research into materials that can withstand the rigours of daily circulation while incorporating security features that are exceptionally difficult to counterfeit.

Unlike conventional paper notes, polymer banknotes are engineered as high-performance security products rather than simply printed pieces of currency. Each stage of production—from the creation of the polymer substrate to the application of specialised inks and embedded security elements—is carefully controlled to ensure consistent quality, durability, and authenticity.

Engineering a New Generation of Currency

At the heart of polymer banknotes is biaxially oriented polypropylene (BOPP), a specialised plastic film known for its exceptional strength, flexibility, and dimensional stability. Through a controlled manufacturing process, polypropylene is stretched in two directions, enhancing its mechanical properties and creating a substrate that resists tearing, moisture, and everyday wear.



Unlike cotton-based paper, polymer does not absorb water or oils, making the notes less susceptible to damage from accidental washing, humidity, or prolonged handling. The material also resists dirt and stains, helping banknotes remain cleaner throughout their circulation life.

To prepare the transparent polymer film for high-quality printing, manufacturers apply specially formulated surface coatings. These coatings improve ink adhesion while preserving the flexibility and transparency of the substrate. The result is a durable surface capable of supporting intricate designs and complex security features without compromising the note's structural integrity.

Precision Manufacturing for Maximum Security

Producing polymer banknotes involves multiple highly specialised processes that combine advanced materials engineering with state-of-the-art printing technologies. The process begins with the production of clear polymer sheets, which are manufactured to precise specifications. Selected areas of these sheets are intentionally left transparent, creating the distinctive clear windows that have become a hallmark of polymer currency.



The remaining surface is coated with opaque layers, providing a printable background for artwork, serial numbers, portraits, and other design elements. These coatings are engineered to withstand years of folding, abrasion, and environmental exposure while maintaining their appearance.

Once prepared, the substrate passes through a series of sophisticated printing stages. Different printing methods—including offset, intaglio, screen printing, and letterpress—are used to apply colours, textures, and security features with remarkable precision.

Each printing technique serves a specific purpose. Intaglio printing, for example, creates raised ink that produces the distinctive tactile feel of genuine banknotes. This texture helps both the public and financial institutions verify authenticity through touch as well as sight.

Advanced Security Features That Protect Against Counterfeiting

One of the most significant advantages of polymer banknotes is their ability to integrate multiple layers of security features into a single substrate. These features are designed to work together, making counterfeiting significantly more difficult than with traditional paper currency.

Transparent Windows

Perhaps the most recognisable feature of polymer notes is the transparent window. Unlike printed imitations, these windows are created during the manufacturing of the polymer substrate itself, making them extremely difficult to reproduce using conventional printing methods.

Many transparent windows also incorporate intricate designs, metallic elements, or optical devices that change appearance when viewed from different angles.

Holographic and Optical Elements

Modern polymer banknotes often include holograms, reflective foils, colour-shifting inks, and dynamic optical features. These elements create visual effects that are immediately noticeable to users while requiring sophisticated manufacturing techniques unavailable to counterfeiters.

Microprinting and Fine-Line Patterns

Extremely small text, intricate geometric patterns, and detailed guilloché artwork are printed with extraordinary precision. These microscopic details remain sharp under magnification but are difficult to replicate accurately using commercial printing equipment.

Raised Printing

Intaglio printing produces raised ink that provides a distinctive tactile experience. Besides enhancing security, these tactile features also improve accessibility by helping visually impaired users identify denominations more easily.

UV and Infrared Security Features

Many polymer notes incorporate inks that fluoresce under ultraviolet light or respond uniquely to infrared detection systems used by banks and cash-processing equipment. These hidden security elements provide additional layers of authentication beyond what is visible to the naked eye.

Longer Life, Lower Costs

Durability is one of the primary reasons many central banks have adopted polymer currency.

Research and real-world experience have shown that polymer banknotes generally remain in circulation significantly longer than equivalent paper notes. While the exact lifespan varies depending on denomination, climate, and usage patterns, polymer notes often last several times longer than traditional cotton-based currency.



This extended service life reduces the frequency with which central banks must print replacement notes. Although polymer banknotes typically cost more to produce initially, their longer circulation life can lower overall lifecycle costs by reducing printing, transportation, storage, and destruction expenses.

The improved durability also benefits businesses and consumers. Polymer notes are less likely to tear, absorb moisture, or become excessively dirty, allowing them to remain functional and recognisable even after years of use.

Continuous Innovation in Currency Technology

Polymer banknotes continue to evolve as advances in materials science and digital security create new opportunities for innovation. Researchers are developing enhanced optical features, machine-readable security elements, and improved tactile designs that make authentication faster and more reliable.

Modern cash-processing equipment can automatically verify many of these sophisticated security features within fractions of a second, helping financial institutions detect counterfeit notes with greater accuracy while improving the efficiency of cash handling operations.

Poly Mart



AVI Global Plast Pvt. Ltd.

Mr. Sampad Xavier Chaudhuri
Marketing Manager

AVI Global Plast is guided by a legacy of over 25 years of entrepreneurship, technology adoption and sustainable thinking. We are passionate about enriching livelihoods with better food shelf life, protective packaging and plastics circularity. Trust us as your reliable and sustainable food packaging supplier, converting your product & machine needs into meaningful rigid pack solutions.





PolyMart : What first pulled AVI's founders into rigid packaging and thermoforming, and how has the company changed since?

Sampad Xavier Chaudhuri : AVI began in 1993 as Collar Pack, a PVC films business, on a simple idea: if you don't control the material, you can't guarantee the product. That principle from K.P. Bhargava is still the story I tell people. Today, AVI Global Plast is led by Managing Director Akhilesh Bhargava and Joint Managing Director Sukhdeep Singh Sethi, who've carried that founding philosophy forward — which is exactly why we're vertically integrated from tooling and extrusion right through to the finished pack, rather than depending on outside suppliers for what determines performance. Thirty years on, AVI runs one of India's largest integrated rigid packaging operations, exporting to 33+ countries across 6 continents, and we've twice been named India's Top Exporter in Thermoformed Products by PLEXCONCIL. The scale has grown enormously; the principle hasn't.

PMT : How did sustainability become part of AVI's long-term thinking?

SXC : It wasn't part of the original vision — it became part of how we operate as export markets demanded it, and that's a more honest story than a founding myth. We realised a manufacturer who can't substantiate what's in their packaging becomes a liability the moment a regulation changes. That's what drove our sustainability certifications, our ocean-bound plastic programme, and eventually our own capability to produce food-grade recycled PET at 100% post-consumer content — a first in India. It started as compliance infrastructure. The sustainability story followed.

PMT : What were the toughest challenges in AVI's early years?

SXC : Two, and both still shape how I think about the company. First, keeping specifications consistent across everything we make — solved by building our own quality systems from day one. Second, earning credibility in export markets that didn't yet trust Indian manufacturers — solved by getting certified early and proving performance before making claims. Prove first, claim second — that's still the discipline.

PMT : What sets your PET sheets, PVC films, and thermoformed packaging apart?

SXC : In every category, it comes down to AVI owning the process end to end — from raw material through to the finished pack. That control is what let us pioneer formats like single-piece avocado and three-piece kiwi punnets for the Indian market, alongside our tamper-evident and high-barrier ranges. Every format is engineered for its end use, never pulled off a general catalogue.

PMT : How does AVI keep quality and food safety consistent?

SXC : Through control, not inspection — inspection only catches a failure after it's happened. Owning raw material, tooling, and production makes consistency structural, and everything we claim is backed by independent third-party verification. The specification agreed at the start should be the specification delivered, every batch, every order

PMT : What R&D is AVI working on to improve packaging performance?

SXC : Three broad directions. Material technology — advancing our recycled PET capability for direct food contact. Manufacturing precision — continuously refining our process to use less material without losing strength. And format innovation — Q-Bic, our cube-shaped punnet format, is the clearest example: it significantly improves how many packs fit into a shipment, which matters a great deal for cold-chain exports.

PMT : How is demand for sustainable packaging shaping your product innovation?

SXC : This is where I spend most of my time, because the demand has moved from preference to obligation. Regulations like the EU's plastic tax rules and India's own extended producer responsibility framework are creating real financial consequences for manufacturers who can't supply certified, traceable recycled content — and India's own recycled-content requirements are rising sharply over the next few years. We started building toward that well before it was mandatory.

PMT : How does AVI customise packaging across different industries and regions?

SXC : It starts with owning our own tooling, so we can engineer to exact specification rather than working from a shared mould. An Indian grape or berry exporter shipping into the EU has very different pack requirements from an FMCG brand selling domestically — different sizes, different shelf-life needs, different compliance paperwork. We serve all of it from one facility, and every brief starts with end use, supply chain, and compliance requirements.

PMT : How is AVI bringing smart packaging and digital tools into its plans?

SXC : For me, smart packaging means solving a real supply chain problem, not adding technology for a headline. Q-Bic is the clearest example — a format change that meaningfully improves how efficiently we can ship fresh produce, which matters a lot for cold-chain costs. On the digital side, AVI Trace, our traceability platform, lets brands and even end consumers follow the journey of recycled material from collection to



finished pack. The test for any new technology is simple: does it cut a real cost or remove a real risk.

PMT : What's helped AVI build long-term customer relationships?

SXC : Control and partnership are central to how we work with customers. When we build tooling to a customer's specification, that tooling and the compliance history behind it stays with us, which genuinely benefits the customer through consistent performance and reliable supply. We try to enter every relationship as a technical partner first — understanding the brief, prototyping, trialling, and flagging compliance changes before they become problems. That's true across fresh produce retail and FMCG, and it's why relationships tend to deepen over time.

PMT : How do you balance sustainability investment against cost efficiency?

SXC : I don't think of it as a trade-off, because at our level of integration the two work together. Using less material without losing strength saves money and reduces waste at the same time. Processing our own recycled input reduces our exposure to volatile raw material prices. And manufacturers without certified, traceable recycled content are increasingly losing access to certain export markets altogether — that's the real cost of being unprepared, not a cost of sustainability.

PMT : What shifts have you noticed in customer priorities over the years?

SXC : Three shifts, straight from customer conversations. From unit price to total cost of ownership — once a customer hits a compliance rejection or a supply disruption, cheapest stops meaning lowest-cost. From a general sustainability preference to wanting proof — customers now want certification and traceability, not just a claim. From local sourcing to supply chain resilience — post-pandemic, buyers increasingly favour a partner who can guarantee consistency over one who's simply nearby.

PMT : How do you see the pace of tech advancement in India's packaging industry?

SXC : Accelerating, but splitting. The gap is widening between manufacturers investing seriously in compliance and material technology, and those still competing on price alone. India's cost advantage has long been established; what's developing now, in a specific cohort, is the technical and compliance credibility to match it.

PMT : What role does automation play in your manufacturing?

SXC : It's what makes consistency possible at scale. Our Daman facility runs substantial solar capacity alongside predictive maintenance and continuous process monitoring — this isn't an add-on, it's simply how we operate, and it's what keeps quality consistent from batch to batch. FY 2025-26 delivered audited results: 263.5 million PET bottles converted to recycled material, 6,746 metric tonnes of CO2 emissions avoided, 5,271 metric tonnes of industrial waste recycled, and 6,325 metric tonnes of fuel consumption avoided.

PMT : Which emerging technologies could reshape Indian packaging?

SXC : Three, and all are compliance enablers before they're sustainability stories. Food-grade recycled PET decontamination will decide who can supply European markets as regulations tighten.



Packaging geometry for logistics — the kind of thinking behind Q-Bic — will extend across more categories as cold-chain costs rise. And digital traceability at the material level will give brands audit-ready evidence instead of general claims. In each case, capability comes first, and the sustainability narrative follows.

PMT : How do you see India's sustainable packaging market evolving over the next decade?

SXC : Regulation will drive it. Frameworks like India's EPR rules and Europe's plastic tax and packaging regulations already carry real financial penalties for manufacturers without certified recycled content. I'd expect the market to split: manufacturers with certified content, verified traceability, and proper documentation will capture export premiums and serious domestic buyers; those without will face growing exclusion.

PMT : What's India's opportunity to become a global packaging hub?

SXC : India's own regulatory push is a big part of the answer. Recycled-content requirements under India's EPR framework are rising sharply over the next few years, and that's pushing every manufacturer to get serious about certified, traceable recycled content rather than treating it as optional.

Manufacturers who build that capability now — verified recycled content, proper documentation, real traceability — will be the ones equipped to serve both domestic brand owners and export markets as the rules tighten further. That's the real opportunity: India's packaging industry becoming genuinely credible on sustainability, not just on cost.

PMT : How important are industry collaborations for circular economy adoption?

SXC : Critical — no single manufacturer can close the loop alone. We've invested in a few organisations that help strengthen different parts of the recycling value chain, from waste collection to fair-wage sourcing to sorting technology. It's meaningful, hands-on work, not just a line in a CSR report.



PMT : How does AVI engage communities in its sustainability work?

SXC : The most meaningful engagement is built into how we source our recycled material. We work with partners who formalise plastic collection with verified fair wages and no child labour, which has helped bring thousands of informal waste workers into more secure employment. On ocean plastics, our MD, Akhilesh Bhargava, worked directly with Afroz Shah, UN Champion of the Earth, to build a collection programme along Indian coastlines — the kind of work that doesn't show up on an invoice but matters just as much.

PMT : What has AVI done to cut its environmental footprint?

SXC : The measures are operational and audited, not aspirational. We run a substantial solar installation at our facility, we've planted a native-species forest on site, and all our processing waste is recycled in-house. Our recycled-PET capability diverts post-consumer bottles from landfill into food-grade packaging, and our sourcing partnerships help secure ethical, quality material supply. FY 2025-26's verified impact: 263.5 million PET bottles converted, 6,746 metric tonnes of CO2 avoided, 5,271 metric tonnes of industrial waste recycled, 6,325 metric tonnes of fuel consumption avoided.

PMT : How much does consumer education matter for better recycling behaviour?

SXC : It matters, but it works best when the system behind it is functional — understanding why to recycle doesn't help if local collection is absent or informal. The bigger leverage points are organised collection economics and real incentives for manufacturers to demand recycled material. We sit at the demand end of that chain, and our AVI Trace platform lets consumers scan a QR code on-pack to see exactly where that packaging's material came from — education that's verifiable, not just claimed.

PMT : How do awards and recognition drive further innovation at AVI?

SXC : I treat recognition as a market signal more than a motivator. PLEXCONCIL naming us India's Top Exporter twice — most recently with the award presented by Minister Piyush Goyal to our MD, Akhilesh Bhargava — confirms our investments are delivering results. Recognition from long-standing clients like Sahyadri Farms confirms our packaging performs under real supply chain conditions. I use these as proof points in conversations, not trophies.

PMT : Any recent partnerships you'd like to highlight?

SXC : A couple of things worth mentioning. We've brought Q-Bic, an innovative cube-shaped punnet format, to the Indian market in partnership with an international packaging specialist — we introduced it at Fresh Produce India 2026, and it's now a fully commercial product line that has meaningfully improved shipping efficiency for berry exporters. We've also made equity investments in a few organisations that strengthen the ethical and technical quality of our recycled material supply chain.

PMT : What can stakeholders expect from AVI in the near future?

SXC : A few themes, broadly. We'll keep deepening our work with fresh produce stakeholders and FMCG brands, and continue building out the digital tools that give brands better visibility into their packaging's footprint. The goal, as always: to be the trusted partner brands rely on when the supply chain can't afford to fail.



" Precision begins with our own tooling, enabling packaging solutions built for performance, compliance, and customer success. "

Our contribution to plastics circularity starts in-house with the recycling of all our processing waste. To support customers in embracing circular economy principles, we collaborate with the right value-chain partners, NGOs and knowledge specialists to evolve our expertise, offerings and traceability in recycled plastics. Our aim is to accelerate the progress in collection, sorting and recycling through unique upcycled packaging, waste-management awareness & consumer engagement.

Poly Mart



JJ Plastalloy Pvt. Ltd.

Mr. Shivam Bansal
CEO

JJ Plastalloy focuses on customized, high-performance material solutions, sustainability initiatives, and innovation, and is recognized as a 2-Star Export House and India's first AEO Level 3 certified masterbatch manufacturer.



Polymart : JJ Plastalloy has established itself as a trusted name in the polymer and masterbatch industry. Could you share the vision behind the company's inception and the guiding principles that have shaped its remarkable journey?

Shivam Bansal : JJ Plastalloy was founded in 1995 by Mr. Jagdish Junjhunwala, a veteran of the plastics and paper industries whose entrepreneurial vision was to build a company founded on technical excellence, customer trust, and long-term partnerships. His objective was to create a single-window raw material solutions provider for the thermoplastics processing industry, offering customers a comprehensive portfolio of masterbatches, polymer compounds, and performance materials under one roof.

This strong foundation has been further strengthened under the leadership of Mr. Shivam Bansal, Director & CEO—a technocrat whose passion for material science began during his engineering years at IIT Delhi. Driven by the belief that India could compete with the world's best, he envisioned building globally competitive capabilities in specialty masterbatches and polymer compounds while reducing the industry's dependence on imported materials through innovation-led import substitution. Over the years, the company's vision has been clear - Make plastics more beautiful, functional, and environment-friendly.

Under his leadership, JJ Plastalloy has evolved from a manufacturing company into a globally trusted Raw Material Solutions Provider. The company's focus today is on engineering materials that improve end-product performance, optimise processing efficiency, reduce total system costs, and enable more sustainable plastic applications. This transformation is supported by continuous investments in advanced manufacturing, application engineering, and research through our DSIR-approved Tatva Knowledge Center (TKC), where customised solutions are developed to address complex customer challenges across industries.

A defining milestone in this journey was the institutionalisation of the QIQO (Quality In, Quality Out) philosophy in 2018. Built on the principles of Kaizen and Total Quality Management (TQM), QIQO ensures rigorous raw material selection, disciplined manufacturing processes, and exceptional batch-to-batch consistency—delivering the reliability and predictability that customers expect in mission-critical applications.

Today, with integrated manufacturing facilities in Dahej, Gujarat and Varanasi, Uttar Pradesh, exports to over 45 countries, and one of India's first and only AEO Level 3 certified organisations in the sector, JJ Plastalloy continues to strengthen India's position as a global manufacturing hub.



PMT : What have been the defining milestones and strategic decisions that have contributed to JJ Plastalloy's sustained growth and industry leadership?

SB : A few decisions stand out. Moving early into export markets took us from a domestic supplier to a company now serving 45+ countries across five continents. Investing in our own government-recognised, DSIR-approved, R&D centre - the Tatva Knowledge Centre that enables us to be genuine raw material solutions provider. And building out solid infrastructure across the country, alongside additional manufacturing capacity at Dahej, Gujarat, plus a UAE warehouse opened in 2024 - has meant we can promise processors in different geographies the same lead times and consistency they'd get from a local supplier.

PMT : How do you ensure that innovation, quality, and customer satisfaction remain the cornerstone of your corporate philosophy?

SB : We treat these three as inseparable rather than as trade-offs. Innovation without quality just produces interesting failures; quality without innovation eventually gets commoditised; and neither means anything if it doesn't translate into value the customer can measure. Practically, that means our R&D team works close to the customer's application - not in isolation - so new formulations are tested against real processing conditions before they leave our lab. Our ISO 9001, ISO 14001, ISO 45001 and IATF 16949 certifications give that consistency a formal backbone. And because a large share of our business is repeat business with processors who've worked with us for years, and some or decades, customer satisfaction isn't a slogan for us - it's the metric that tells us whether the first two are actually working.

PMT : How do you continuously align your product development strategy with the evolving performance requirements of diverse end-use industries?

SB : We stay closely connected to the industries we serve, including automotive, electrical and appliances, packaging, agriculture, infrastructure, and polyester fibre. Rather than developing products in isolation and hoping the market



adopts them, we let evolving customer requirements shape our innovation roadmap. As applications become more demanding, whether through lightweight automotive components, high-clarity packaging, UV and weather-resistant infrastructure products, or advanced engineering applications, our portfolio continues to evolve alongside them. What began with core solutions such as colour, white, black, and calcium carbonate masterbatches has expanded into specialised products including NIR-detectable, UV-stable, flame-retardant, antimicrobial masterbatches, as well as PP, PA6, and SAN engineering compounds.

Every new formulation is developed and validated at our R&D Center before it reaches the market. This ensures that performance, processability, regulatory requirements, and end-use expectations are built into the product from the outset, rather than being addressed after development.

PMT : Could you elaborate on your current R&D initiatives focused on developing next-generation, high-performance, and sustainable polymer solutions?

SB : Research and development at our DSIR-approved Tatva Knowledge Centre (TKC) is driven by a few clear priorities. We focus on developing performance masterbatches that help processors optimise resin consumption without compromising mechanical properties, additive solutions that enhance product durability through UV stabilisation, antimicrobial and antistatic technologies, and functional innovations such as NIR-detectable black masterbatches that improve sorting and recyclability. Sustainability is no longer treated as an afterthought. It is integrated into our product development process from the very beginning. We are continuously working on formulations that support recyclability, improve resource efficiency, and reduce environmental impact, while delivering the performance and processing consistency our customers expect.

Our R&D team combines deep expertise in material science with rigorous application testing. Every new solution is evaluated under real-world processing conditions, ensuring that the products we bring to market are not only technically advanced but also practical, reliable, and ready for commercial production.

PMT : How is your technical and R&D team leveraging advanced material science, laboratory capabilities, and application engineering to deliver differentiated solutions for customers?

SB : Customisation begins with understanding the customer's application in detail. Before recommending a formulation, our technical team works closely with the customer to understand their processing parameters, base resin, end-use requirements, and performance expectations. This collaborative approach ensures that every solution is designed for the specific application rather than adapted from a standard product.

Our Tatva Knowledge Centre (TKC) gives us the capability to develop and validate these solutions entirely in-house. From compounding trials and colour matching to mechanical, thermal, and weathering tests, every stage of development is carried out under one roof. This not only gives us greater control over quality but also enables faster development cycles and quicker response times for our customers.

Where required, our application engineers work alongside customers during production trials to fine-tune the formulation under actual processing conditions. This ensures that the material performs consistently on the customer's production line and integrates seamlessly into their manufacturing process.

We believe true customisation goes beyond supplying a product. It is about combining material science, application engineering, and technical collaboration to deliver solutions that create measurable value for our customers.

PMT : How is JJ Plastalloy positioning itself to capitalize on these emerging market opportunities?

SB : Today, sustainability, lightweighting, and high-performance materials are closely interconnected, with customers looking for solutions that deliver better performance while using fewer resources and reducing environmental impact.

We continue to align our innovation strategy with these evolving expectations. We are developing masterbatches and compounds that enable thinner gauges, lighter components, and improved material efficiency without compromising strength or performance. At the same time, we continue to expand our portfolio of functional and additive masterbatches that enhance product durability, improve recyclability, and support more sustainable manufacturing practices. Sustainability is equally important within our own operations. Our manufacturing facilities incorporate initiatives such as zero water discharge, solar energy, and the recycling of internal plastic waste, reflecting our commitment to responsible manufacturing. We believe sustainability must be demonstrated through



measurable actions, not just communicated through marketing. Our close engagement with customers across automotive, packaging, agriculture, infrastructure, and other industries also gives us valuable insight into emerging market needs. These interactions help us identify future trends early and ensure that our R&D efforts remain focused on developing solutions that address the next generation of material challenges.

PMT : How does your innovation strategy enable the company to anticipate future market demands and deliver value-added solutions?

SB : Each of these sectors is evolving on its own timeline, so our innovation strategy has to stay sector-specific rather than one-size-fits-all. Packaging is moving toward recyclability and lighter-weight structures; automotive wants compounds that shave weight and cost while meeting stricter durability and regulatory requirements; agriculture needs films and compounds that survive harsher UV exposure over longer field life; infrastructure - pipes, tanks, geotextiles - needs long-term weatherability and consistency at scale. We stay ahead of these shifts mainly by staying close to our customers' own product roadmaps - a lot of what we develop begins as a specific customer brief that we then generalise into a broader product line once we've proven it works.

PMT : What strategic initiatives have been instrumental in expanding your global footprint while maintaining consistent product quality and customer confidence?

SB : Consistency has been the strategic thread. Whether we're supplying a processor in India or a customer in the UAE, Africa or Latin America, they should get the same quality, the same documentation, and increasingly the same responsiveness. Opening our UAE warehouse in 2024 was a direct response to that principle - it lets us serve Middle East customers with faster delivery and local support rather than long shipping lead times. Achieving India's first AEO Level 3 certification for a masterbatch manufacturer has also mattered more than people might expect - it streamlines customs processes and signals a level of compliance discipline that international buyers look for. Today we export to more than 45 countries, and the goal going forward is deepening those relationships rather than simply adding new geographies for their own sake.

PMT : What distinguishes JJ Plastalloy in terms of technological capabilities, manufacturing excellence, and long-term customer partnerships?

SB : A few things set us apart. First, having an in-house, government-recognised R&D centre means we're not dependent on external labs for new development, and that shortens our response time to customers significantly.

Second, our manufacturing footprint and certifications - ISO 9001, ISO 14001, ISO 45001, IATF 16949, plus AEO Level 3 status - give international customers the assurance they need to build long-term supply relationships with us rather than treating us as a transactional vendor. Third, and maybe most important, is longevity. Three decades in this industry means many of our customer relationships go back years, some over a decade, and that kind of trust doesn't come from a single good order, it comes from consistency sustained over time.

PMT : How do you assess the impact of advanced manufacturing technologies, automation, and digitalization on the future competitiveness of the sector?

SB : Automation and digitalisation are changing what "competitive" means in this industry. It's no longer just about raw material cost, it's about consistency, traceability and speed of customisation. Companies that invest in process automation and digital quality systems are able to offer faster turnaround on customised formulations and more reliable batch-to-batch consistency, which matters enormously to processors running high-speed lines. We see this playing out in our own operations. The more we digitise testing and process control at the Tatva Knowledge Centre, the faster we can move a new formulation from lab to commercial supply.

Over the next decade, I expect this to become table stakes rather than a differentiator - the companies that don't invest will simply fall behind on responsiveness.

PMT : which emerging technologies and material innovations do you believe will redefine the future of polymer manufacturing in India?

SB : A few things stand out to me. As our plastic industry moves towards a more circular economy, demand for recycle-compatible masterbatches and compounds will continue to grow. Developing formulations that perform consistently with recycled polymers, while maintaining processing stability and end-product performance, will be a key focus area.

We also see increasing adoption of technologies such as NIR-detectable black masterbatches that improve sorting and recyclability, alongside growing interest in lower-carbon and bio-based additive systems. At the same time, sustainable manufacturing practices such as efficient energy and water management, waste reduction, and renewable energy are becoming customer expectations rather than competitive advantages. At JJ Plastalloy, our investments in these areas reflect our long-term commitment to responsible innovation and sustainable growth.

PMT : How do you foresee the country's polymer and masterbatch industry evolving over the next decade, and what opportunities does this present for companies like JJ Plastalloy?

SB : India's position as a global manufacturing hub is only going to strengthen over the next decade, and the polymer and masterbatch industry will be a direct beneficiary of that - as more downstream manufacturing (automotive components, appliances, packaging) locates in India, demand for high-quality, locally produced masterbatches and compounds grows alongside it.

Poly Mart



RBI Begins Trial of ₹10 and ₹20 Polymer Notes in India

New plastic currency pilot aims to improve durability, security and sustainability while reducing replacement costs

The Reserve Bank of India (RBI) is set to introduce field trials of polymer banknotes for ₹10 and ₹20 denominations, marking a significant step towards exploring more durable and secure currency solutions in India. The initiative aims to evaluate the performance of plastic-based notes before considering any wider adoption.

The Government of India has approved the RBI's proposal to conduct trials involving one billion polymer notes each of ₹10 and ₹20 denominations. The pilot project will assess factors such as durability, cost efficiency, public acceptance and operational performance. Authorities have clarified that the move is only a trial phase and does not involve replacing existing paper currency at present.



Polymer banknotes are made using a flexible plastic substrate that offers several advantages over traditional paper-based currency. These notes are designed to withstand moisture, dirt and frequent handling, giving them a longer circulation life compared with conventional notes. The extended lifespan could help reduce the frequency of replacement and disposal of damaged currency.

Security features are another major reason behind the global adoption of polymer currency. Countries including Australia, Canada, the United Kingdom and Singapore have already introduced polymer notes due to their durability and advanced security characteristics. India's trial will help determine the suitability of this technology for domestic circulation conditions. The move also highlights the growing role of advanced polymer technology beyond traditional industrial applications. Polymer materials are increasingly being used in areas requiring high durability, security and performance, including currency, healthcare, packaging and specialised manufacturing sectors @ Jul 31, 2026.

Plasticizer Breakthrough Enables Brighter, Stretchable OLED Displays for Wearables

Researchers discover that a common plastic softener significantly improves the brightness and flexibility of light-emitting polymer films, paving the way for next-generation wearable electronics.

Researchers at the University of Chicago Pritzker School of Molecular Engineering have discovered that adding a common plasticizer, dioctyl phthalate (DOP), to light-emitting polymer films makes them both brighter and significantly more stretchable. The breakthrough offers a simple yet highly effective approach to overcoming one of the biggest challenges in developing flexible OLED displays for wearable electronics. The study found that incorporating the plasticizer into light-emitting polymers enhances both their mechanical flexibility and light-emission efficiency. Traditionally, improving the stretchability of OLED materials has often reduced their brightness.



The new approach successfully addresses this trade-off, enabling materials that maintain high optical performance even under repeated stretching. The strategy focuses on enhancing manufacturing efficiency while maintaining high standards of product quality and customer service. Industry observers note that mergers and acquisitions continue to play an important role in the plastics sector, enabling manufacturers to expand capabilities, diversify end markets, and strengthen supply chains. Increased investment in automation and modern moulding technologies is expected to improve competitiveness and support future business growth. The £7.2 million acquisition reflects continued investor confidence in the plastics manufacturing industry. By combining complementary expertise and expanding production capabilities, the transaction is expected to create a stronger platform for innovation, operational excellence, and sustainable growth in the UK plastic moulding sector @July 28, 2026.



Gujarat Approves ₹2,999 Crore Industrial Projects to Boost Manufacturing Growth

State clears 32 industrial projects under incentive schemes, driving investments, employment, and expansion across key manufacturing sectors.

The Gujarat Government has approved 32 industrial projects worth ₹2,999 crore under various industrial incentive schemes, reinforcing the state's commitment to expanding manufacturing, attracting investments, and generating employment. The approvals were granted during high-level committee meetings chaired by Deputy Chief Minister and Industries Minister Harsh Sanghavi. The approved projects span a broad range of industries, including automobiles, metals, cement, concrete, plastics, ceramics, chemicals, paper, textiles, and pharmaceuticals. Together, these investments are expected to create more than 6,000 direct employment opportunities, further strengthening Gujarat's position as one of India's leading industrial destinations.



The State-Level Empowered Committee also sanctioned financial assistance for three textile manufacturing units under the Scheme for Assistance to Strengthen Specific Segments in the Textile Value Chain–2019. These textile projects represent investments of approximately ₹165 crore and are expected to create nearly 500 additional direct jobs. The approvals align with Gujarat's broader industrial development strategy, which focuses on promoting manufacturing, enhancing infrastructure, and encouraging investment through attractive incentive schemes. According to the state government, its industrial policies have already attracted investments of over ₹1.48 lakh crore while generating approximately 1.65 lakh direct jobs across multiple sectors. The latest approvals reinforce Gujarat's reputation as a preferred manufacturing hub by encouraging investment across traditional and high-growth industries. With continued policy support and infrastructure development, the state aims to accelerate industrial expansion, strengthen supply chains, and contribute significantly to India's long-term manufacturing and economic growth @July 28, 2026.

Industrial Investor Acquires Two Plastic Moulding Manufacturers in £7.2 Million Deal

Strategic acquisition strengthens plastic injection moulding capabilities, expands manufacturing capacity, and supports long-term growth across key industrial markets.

A UK-based industrial investment firm has acquired two plastic moulding manufacturers in a £7.2 million transaction, reinforcing its presence in the plastics manufacturing sector and expanding its portfolio of precision engineering businesses. The acquisition is expected to strengthen production capabilities while creating opportunities for long-term growth across multiple industrial markets. The deal brings together two established plastic moulding companies with expertise in injection moulding, toolmaking, product design, and contract manufacturing.



The strategy focuses on enhancing manufacturing efficiency while maintaining high standards of product quality and customer service. Industry observers note that mergers and acquisitions continue to play an important role in the plastics sector, enabling manufacturers to expand capabilities, diversify end markets, and strengthen supply chains. Increased investment in automation and modern moulding technologies is expected to improve competitiveness and support future business growth. The £7.2 million acquisition reflects continued investor confidence in the plastics manufacturing industry. By combining complementary expertise and expanding production capabilities, the transaction is expected to create a stronger platform for innovation, operational excellence, and sustainable growth in the UK plastic moulding sector @July 28, 2026.



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Cheshire Plastics Group Acquired in Multi-Million Pound Growth Deal

Strategic acquisition strengthens manufacturing capabilities and supports expansion across the UK plastics sector

Cheshire Plastics Group has been acquired in a multi-million-pound transaction, marking a significant step in the company's growth strategy and reinforcing confidence in the UK plastics manufacturing sector. The acquisition is expected to expand production capabilities, strengthen customer offerings, and accelerate long-term business development. The deal brings together complementary manufacturing expertise, enabling the combined business to offer a broader portfolio of plastic processing solutions while enhancing operational efficiency. The acquisition also supports increased investment in technology, product innovation, and customer service to meet growing demand across multiple industrial sectors.



Industry experts view the acquisition as part of a broader trend of consolidation within the plastics sector, where manufacturers are combining capabilities to improve competitiveness, strengthen supply chains, and deliver more comprehensive solutions to customers. Strategic investments of this kind are also helping companies adapt to evolving market requirements, sustainability goals, and technological advancements. The acquisition is expected to create new opportunities for innovation while supporting continued investment in manufacturing excellence, skilled workforce development, and long-term expansion across the UK plastics industry @July 27, 2026.



PM Modi Applauds Sitamarhi's Plastic Recycling Initiative in Mann Ki Baat

Bihar's community-led recycling model earns national recognition for transforming plastic waste into sustainable infrastructure and promoting environmental awareness

Prime Minister Narendra Modi has praised Bihar's Sitamarhi district for its innovative plastic waste recycling initiative during the latest edition of Mann Ki Baat, bringing national attention to the district's efforts in sustainable waste management and environmental conservation. The recognition showcases how local communities can drive meaningful change through effective recycling practices. The Sitamarhi model focuses on collecting discarded plastic waste and converting it into useful products while preventing plastic pollution. Officials involved in the initiative said the project has helped reduce environmental contamination, encouraged responsible waste disposal, and increased public participation in recycling activities.



The initiative not only diverts plastic from landfills and water bodies but also supports the development of a circular economy by giving used plastic a second life. Officials noted that the programme has improved cleanliness, created greater awareness about plastic waste segregation, and encouraged citizens to adopt environmentally responsible practices. The initiative also demonstrates how innovative waste management solutions can contribute to resource conservation and sustainable urban development. During Mann Ki Baat, Prime Minister Modi described the Sitamarhi recycling effort as an inspiring example of grassroots environmental action. He encouraged people across the country to learn from such community-driven initiatives and actively participate in protecting the environment. The recognition is expected to motivate other districts and municipalities to strengthen their recycling infrastructure and promote sustainable plastic waste management as India advances its environmental and circular economy goals @July 27, 2026.

GreenDot France Explores Acquisition of EPR Operator Léko

Potential deal could strengthen plastic recycling, packaging recovery and circular economy operations in France

GreenDot France is exploring the acquisition of French Extended Producer Responsibility (EPR) operator Léko, a move that could reshape the country's packaging waste management and recycling landscape. The potential transaction is aimed at strengthening recycling infrastructure, improving collection systems, and supporting the transition towards a circular economy. The discussions come as European markets continue to focus on expanding producer responsibility systems, increasing recycled material usage, and improving packaging waste recovery. EPR organisations play a key role by helping producers manage their environmental obligations through collection, sorting, and recycling networks.



If completed, the acquisition could provide GreenDot with a stronger position in France's EPR market while combining expertise in compliance management, packaging recovery, and recycling operations. The deal may also support greater availability of recycled plastics for manufacturers and brands seeking sustainable material solutions. The move reflects a broader European trend of consolidation in the recycling sector, where companies are building integrated platforms covering waste collection, sorting, recycling, and recycled material supply to meet growing sustainability requirements @July 27, 2026.



Jyoti World Showcases Integrated Circular Polymer Ecosystem at GCPRS 2026

Company highlights recycled polymer products and end-to-end circular economy solutions, demonstrating sustainable plastic manufacturing at India's leading recycling exhibition.

Jyoti World showcased its integrated circular polymer ecosystem and an extensive portfolio of recycled polymer products at the Global Conclave on Plastic Recycling and Sustainability (GCPRS) 2026 in New Delhi. The exhibition provided the company with a platform to demonstrate how plastic waste can be transformed into high-quality recycled materials through a fully integrated circular value chain. At the event, the company highlighted its end-to-end recycling ecosystem, covering plastic waste collection, segregation, recycling, polymer compounding, and the production of value-added recycled plastic products. The integrated approach is designed to maximize resource efficiency while reducing dependence on virgin polymers and supporting circular manufacturing practices.



The exhibit highlighted the growing potential of recycled polymers to support environmentally responsible manufacturing without compromising product quality or functionality. Participation in GCPRS 2026, India's largest plastics recycling and sustainability exhibition, reflects Jyoti World's commitment to advancing the circular economy through innovation, recycling technologies, and sustainable material development. The event brought together recyclers, polymer manufacturers, machinery suppliers, brand owners, and policymakers to promote collaborative solutions for plastic waste management and resource recovery. By showcasing its integrated circular polymer ecosystem, Jyoti World reinforced the importance of closing the loop on plastic waste through advanced recycling and value-added manufacturing. The company's solutions demonstrate how recycled polymers can contribute to a more sustainable plastics industry while supporting India's transition toward a circular economy @July 25, 2026.

From villain to value: HIPLEX 2026 to showcase the amazing second life of Plastic

Dedicated Recycling Pavilion to showcase how discarded plastic is becoming roads, railway sleepers, houses, furniture and fashion

For years, plastic has been portrayed as an environmental villain. Today, science, technology and innovation are giving it a remarkable second life. This inspiring transformation will come alive at the Recycling Pavilion at HIPLEX 2026, India's third-largest plastics exhibition, to be held from August 7 to 10 at HITEX Exhibition Centre, Hyderabad. One of the pavilion's biggest attractions will demonstrate how just 25 discarded PET bottles can be transformed into a stylish T-shirt, highlighting the rapidly growing "bottle-to-fashion" movement. Visitors will also discover how plastic waste is being converted into roads, railway sleepers, bricks, construction materials, benches, bus shelters, outdoor furniture and even houses. The pavilion carries a simple but powerful message: "Without recycling, garbage remains garbage. With recycling, garbage becomes a resource."



With live demonstrations, interactive exhibits and hundreds of innovative products made from recycled plastics, the Recycling Pavilion promises to be one of the biggest attractions at HIPLEX 2026. HIPLEX 2026 is expected to feature over 500 exhibitors and attract more than 50,000 business visitors from India and abroad, making it one of the country's largest platforms for plastics, polymers, recycling technologies and sustainable manufacturing @July 25, 2026.



Hainan Rubber Fertiliser Technology Boosts Latex Yields, Wins National Agriculture Award

Advanced fertiliser management system increases rubber yields, lowers fertiliser use and labour costs, earning a national agricultural technology award in China.

Hainan Rubber, in collaboration with leading agricultural research institutions, has developed an advanced fertiliser management technology that significantly improves natural rubber latex yields while reducing fertiliser consumption and labour costs. The innovation has been recognised with a Second Prize in China's National Agriculture Technology Extension Achievement Awards (2022–2024), highlighting its contribution to sustainable rubber cultivation. The project was led by the Hainan State Farms Academy Group with participation from Hainan Rubber, the Rubber Research Institute of the Chinese Academy of Tropical Agricultural Sciences, and several research and production organisations. Development began in 2014 to address declining soil fertility and inefficient fertiliser use across China's major rubber-growing regions.



The company estimates the technology has generated approximately ¥55.7 million in additional sales and ¥71.8 million in overall economic benefits. Beyond increasing latex production, the technology promotes more sustainable plantation management by improving soil fertility and reducing dependence on conventional fertilisers. The integration of controlled-release and organic fertilisers supports efficient nutrient utilisation while helping minimise environmental impacts associated with intensive agricultural practices. The national award underscores the growing importance of precision nutrient management in the natural rubber industry. As rubber producers seek higher productivity and more sustainable cultivation methods, innovations such as Hainan Rubber's fertiliser technology are expected to enhance plantation efficiency, improve grower profitability, and support the long-term development of the global natural rubber sector @July 24, 2026.

Pirelli and Partners Launch Europe's Largest Tyre-to-Tyre Circular Recycling Project

New closed-loop initiative will transform end-of-life tyres into recycled materials for manufacturing new tyres, advancing Europe's circular economy and sustainable rubber production.

Pirelli, together with a group of industry partners, has launched Europe's largest tyre-to-tyre circular recycling initiative, marking a major milestone in the development of a closed-loop value chain for end-of-life tyres. The project aims to recover high-value raw materials from used tyres and reintroduce them into the production of new tyres, reducing dependence on virgin resources and supporting the transition to a circular economy. The initiative focuses on converting end-of-life tyres (ELTs) into valuable secondary raw materials, including recovered carbon black, recycled rubber, steel, and other reusable materials. These recovered materials will be processed to meet the quality standards required for manufacturing new tyres, enabling a true tyre-to-tyre recycling model rather than lower-value applications.



The launch of Europe's largest tyre-to-tyre recycling project reinforces Pirelli's commitment to sustainable innovation and circular manufacturing. As the industry continues to increase the use of recycled materials, initiatives such as this are expected to play a key role in building a more resilient, resource-efficient, and environmentally responsible tyre industry @July 24, 2026.



SÜDPACK Introduces Compostable PLA Packaging Film for Fresh Produce

New bio-based PLA film delivers high transparency, product protection, and industrial compostability, supporting sustainable packaging solutions for fruits and vegetables.

German packaging manufacturer SÜDPACK has expanded its sustainable packaging portfolio with a plant-based PLA (polylactic acid) packaging film developed for fresh fruit and vegetable applications. The new solution is designed to combine product protection with improved environmental performance by using renewable raw materials and offering industrial compostability. The packaging film is manufactured using PLA, a bio-based polymer derived from renewable agricultural resources. It provides the transparency, strength, and processing performance required for fresh produce packaging while helping brands reduce their reliance on conventional fossil-based plastics. The material is suitable for packaging products such as fruits, vegetables, and other fresh food items that require attractive product presentation and reliable shelf-life protection.



The launch reflects the growing demand for bio-based and compostable packaging as retailers, food manufacturers, and consumers seek alternatives to conventional plastic packaging. Compostable PLA solutions can support organic waste collection systems where suitable industrial composting infrastructure is available, contributing to broader circular economy objectives. SÜDPACK continues to invest in sustainable packaging technologies, including recyclable mono-material films, paper-based structures, and bio-based polymers, to help customers meet evolving regulatory requirements and sustainability targets. The company is expanding its portfolio to address demand across food, medical, and industrial packaging applications. With the introduction of its new PLA packaging film, SÜDPACK reinforces its commitment to advancing renewable-material packaging solutions for the fresh produce sector. The innovation provides food companies with another option to improve packaging sustainability while maintaining the performance, protection, and quality expected in modern food packaging @July 24, 2026.

Pirelli Launches Europe's Tyre-to-Tyre Circular Economy Project

Pirelli, BASF and Partners Close the Loop with Tyre-to-Tyre Recycling

Tyre-to-tyre" project launched in Europe, coordinated by Pirelli, to advance circularity and reduce reliance on virgin raw materials 22 July 2026 – Pirelli, Pyrum, Synthos and BASF are jointly advancing a tyre-to-tyre circular economy initiative in Europe, driving the development of an industrial ecosystem designed to increase the use of recycled materials derived from end-of-life and scrap tyres. The process draws on end-of-life tyres collected across Germany, from some Driver retail outlets and motorsport activities, as well as scrap tyres collected from Pirelli's Breuberg plant.



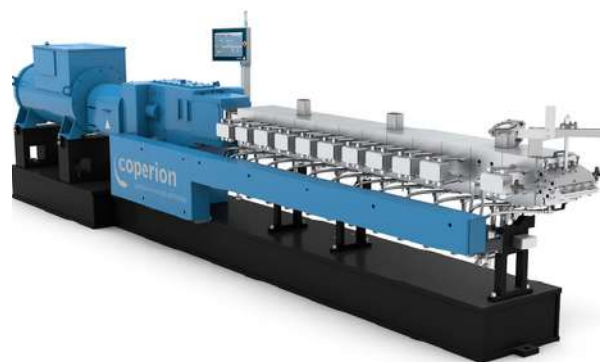
The project perfectly reflects that genuine product circularity cannot be achieved by a single company acting alone. It requires creating industrial ecosystems involving players with complementary expertise, each contributing to different phases of the transformation process around a shared material loop. Through collaboration and the combination of technological innovation, material science, and certified processes, the partners, driven by Pirelli, build a coordinated system in which materials are recovered, transformed and reused by maximizing their inner value. The European tyre-to-tyre project represents the most comprehensive application of this approach to date, demonstrating how end-of-life tyres can become a valuable resource within a structured and traceable industrial loop @July 23, 2026.



ZSK Twin Screw Extruders for the Production of High-Performance Engineering Plastics

Dongguan Baier Plastic Acquires Three High-Temperature ZSK Extruders from Coperion

Stuttgart, July 2026 – Dongguan Baier Plastic Co., Limited, a leading provider of high-performance engineering plastics based in China, has acquired three ZSK Mc 18 compounders from Coperion. With these twin screw extruders, the company is expanding its production capacity for high-performance engineering plastics such as PA6/PA66, PEEK, PEI, PAI, PPS, PPO, PPA, PA9T, PA10T, LCP, and PA46, which are primarily used in the automotive industry, the electrical and electronics sector, and mechanical engineering. The processing of high-performance engineering plastics places the highest demands on production technology and the compounding process. Drawing on its extensive experience accumulated over many years and numerous successful references, Coperion has designed the set-up of the three ZSK extruders and the suitable screw designs for the required high process temperatures.



To fully exploit the performance potential of the ZSK Mc 18 extruders, the ZS-B side feeders are equipped with the patented Feed Enhancement Technology (FET). In the feeding zone there is a porous, gas-permeable wall section to which a vacuum is applied externally. The result of FET technology is a significant increase in throughput and improved cost-effectiveness of the compounding system. We are very proud to support Dongguan Baier Plastic in their expansion with three additional ZSK Mc 18 extruders. We are confident that the company is ideally positioned for the future with these compounding systems. We wish Dongguan Baier Plastic all the best and look forward to further collaboration!” says Joanne Shen, General Manager Engineering Plastics at Coperion @July 21, 2026.

Watch Plastic Waste turn into roads, homes and T-Shirts at HIPLEX 2026: Experts

Hyderabad, July 20, 2026: The roadshow for HIPLEX 2026, India’s third largest plastics exhibition held, setting the stage for one of the country’s biggest plastics industry events.

The roadshow was inaugurated by Dhannarapu Srinivas Gupta, Superintendent of Police – Vigilance & Enforcement, stated Telangana Andhra Plastics Manufacturers Association (TAAPMA) in a press note issued in the city today. HIPLEX 2026 will be held from August 7 to 10, 2026, at HITEX Exhibition Centre, Hyderabad. The triennial international exhibition is being organised with the support of the Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers, Government of India; Government of Telangana; CIPET, and other industry partners.



Themed “The Rise of Atmanirbhar & Viksit Bharat in Amrit Kaal: Invest to Transform,” HIPLEX 2026 will showcase cutting-edge machinery, raw materials, processing technologies, recycling solutions, automation, sustainability initiatives and finished products across the entire plastics value chain. Addressing the gathering, Dhannarapu Srinivas Gupta said that plastics are often viewed only through the lens of pollution, whereas modern life and industry are deeply dependent on them. The challenge before us is not to eliminate plastics but to use them responsibly, recycle them effectively and build a sustainable circular economy.” Nearly 40,000 manufacturing units provide livelihoods to around 18 lakh people @July 21, 2026.



OCEANZYME Project Develops Enzymatic Recycling Solutions for Marine Plastic Waste

AIMPLAS-led initiative will use advanced biotechnology to recycle degraded marine plastics into valuable materials for fisheries and aquaculture applications.

The OCEANZYME project has been launched to develop innovative enzymatic recycling technologies capable of transforming degraded marine plastic waste into valuable new resources. The initiative brings together AIMPLAS, the Institute of Marine Sciences (ICM-CSIC), the Institute of Advanced Chemistry of Catalonia (IQAC-CSIC), and the Vertidos Cero Association to address one of the most challenging forms of plastic pollution—highly degraded marine litter that cannot be effectively recycled using conventional mechanical methods. Running from 2026 to 2028, the project adopts an integrated scientific approach combining metagenomic analysis, enzymatic characterization, molecular simulations, and the isolation of plastic-degrading bacteria.



Beyond plastic recycling, the project will evaluate how the recovered materials can be applied in the fisheries and aquaculture sectors, creating new opportunities to convert marine waste into useful products. The initiative also aims to improve understanding of plastic-degrading microorganisms and accelerate the development of scalable biotechnology solutions for the plastics industry. Co-financed by the European Maritime, Fisheries and Aquaculture Fund (EMFAF) through Spain's Pleamar Programme, OCEANZYME represents a significant step toward sustainable marine waste management. By combining biotechnology with advanced polymer science, the project seeks to reduce ocean plastic pollution while unlocking new value from difficult-to-recycle plastic waste @July 21, 2026.

Hawk Plastics Expands Production with 3,000-Ton Injection Moulding Press

New high-tonnage injection moulding machine boosts manufacturing capacity for large, complex plastic components, supporting growth across industrial and transportation markets.

Hawk Plastics has strengthened its manufacturing capabilities by installing a 3,000-ton injection moulding press, significantly expanding its ability to produce large and complex plastic components. The investment supports the company's strategy to meet growing customer demand while enhancing production efficiency and manufacturing flexibility. The new high-tonnage machine enables Hawk Plastics to manufacture larger moulded parts with greater precision and consistency. It also expands the company's capacity to serve customers requiring oversized and technically demanding plastic components for industrial, transportation, construction, agricultural, and heavy equipment applications.



The installation reflects the continued trend of plastics processors investing in advanced manufacturing equipment to improve competitiveness and address increasing demand for precision-moulded components across multiple industries. Modern injection moulding systems also offer improved automation, energy efficiency, and process control, supporting consistent product quality. With the addition of the new 3,000-ton injection moulding press, Hawk Plastics is well positioned to expand its manufacturing capabilities, strengthen customer support, and capitalize on growing opportunities in the global plastics processing industry @July 21, 2026.



Chennai to Use Plastic and Non-Biodegradable Waste for Road Construction

Chief Minister C. Joseph Vijay directs Greater Chennai Corporation to utilize plastic waste in road works and expand scientific waste management across urban local bodies.

Tamil Nadu Chief Minister C. Joseph Vijay has directed the Greater Chennai Corporation (GCC) to utilize plastic and other non-biodegradable waste in road construction as part of a comprehensive scientific waste management strategy. The directive aims to promote the productive use of difficult-to-recycle materials while reducing landfill disposal and strengthening circular economy practices. The instruction was issued during a review of the bio-CNG plant at Chetpet, which operates under a Public-Private Partnership (PPP) model. The facility has the capacity to process 140 metric tonnes of wet waste per day, converting biodegradable waste into bio-CNG that is supplied to restaurants and commercial establishments.



The initiative is expected to provide a significant boost to the plastic recycling and polymer industries by creating additional demand for processed plastic waste in infrastructure projects. The use of shredded waste plastics in asphalt mixtures has been shown to improve road durability, enhance resistance to water damage, and reduce maintenance requirements while promoting sustainable waste utilization. Tamil Nadu has been a pioneer in plastic road technology, building on innovations developed by Indian researchers to incorporate waste plastics into bituminous road construction. The latest directive reinforces the state's commitment to integrating sustainable materials into public infrastructure while improving urban waste management. By combining waste segregation, bio-CNG production, plastic recycling, and infrastructure development, the state aims to create a more resource-efficient urban waste management system. The initiative is expected to support cleaner cities, reduce environmental impact, and expand the use of recycled polymer materials in road construction across Tamil Nadu @July 21, 2026.

RBI Plans Pilot of Polymer ₹10 and ₹20 Notes to Enhance Currency Durability

Reserve Bank of India initiates procurement process for polymer banknote substrates as part of a pilot project aimed at improving note durability, security, and lifecycle performance.

The Reserve Bank of India (RBI) is moving forward with plans to introduce polymer banknotes by initiating a pilot project for ₹10 and ₹20 denominations, marking a significant step toward modernising India's currency system. The initiative begins with a global procurement process for advanced polymer substrates that will be used to print the trial banknotes. The RBI's currency-printing subsidiary, Bharatiya Reserve Bank Note Mudran Pvt. Ltd. (BRBNMPL), has invited global expressions of interest from manufacturers capable of supplying biaxially oriented polypropylene (BOPP)-based polymer substrate sheets embedded with advanced security features. The pilot is expected to evaluate the performance of polymer notes before any wider rollout is considered.



Polymer banknotes are already used in more than 50 countries, including Australia, Canada, the United Kingdom, and New Zealand, where they have demonstrated longer service life, improved cleanliness, and lower replacement costs compared to traditional paper notes. India's pilot programme will assess whether similar benefits can be achieved under local circulation conditions. The proposed pilot underscores RBI's focus on enhancing the durability, security, and efficiency of India's currency system through advanced polymer technology. While no nationwide rollout has been announced, the project could pave the way for a new generation of longer-lasting, more secure banknotes if field trials are successful @July 20, 2026.



Pune to Build Elevated Roads Using Malaysian Technology with Fewer Support Pillars

Innovative construction method will increase pillar spacing, reduce costs, ease traffic disruption, and accelerate elevated road development across Pune.

The Government of India is set to introduce Malaysian construction technology for Pune's upcoming elevated road projects, enabling significantly wider spacing between support pillars and helping reduce construction costs, traffic disruption, and project timelines. The technology is expected to play a key role in modernising urban road infrastructure while improving traffic flow across the city. According to Union Road Transport and Highways Minister Nitin Gadkari, the new engineering approach allows the distance between support pillars to increase from around 30 metres to nearly 120 metres. Fewer pillars mean reduced obstruction on existing roads, lower material consumption, and greater flexibility for constructing elevated corridors in densely populated urban areas.



The technology will be used in three major elevated road projects planned for the Pune region. These corridors are intended to reduce congestion, improve connectivity, and complement the city's expanding transport network by providing uninterrupted traffic movement on key routes. Construction work is expected to begin following the foundation stone ceremony. Besides reducing construction costs, the wider-span design is expected to minimise land acquisition requirements and shorten the duration of on-site work. The approach could also improve road aesthetics while allowing better utilisation of space beneath the elevated structures for local traffic and urban infrastructure. The initiative reflects India's increasing adoption of advanced international engineering practices to build faster, more efficient transport infrastructure. If successfully implemented, the Malaysian technology could become a model for future elevated road, flyover, and metro projects in other rapidly growing Indian cities @July 20, 2026.

Chinese Researchers Develop Low-Cost Process to Convert Plastic Waste into Jet Fuel

Novel two-stage catalytic technology transforms plastic waste into aviation-grade fuel at competitive costs, offering a promising pathway for plastic recycling and sustainable aviation.

Researchers in China have developed a low-cost catalytic process that converts mixed plastic waste directly into aviation-grade jet fuel, offering a promising new approach to tackling plastic pollution while supporting the production of sustainable aviation fuel. The study demonstrates that difficult-to-recycle plastic waste can be transformed into high-value fuel with production costs comparable to conventional fossil-derived jet fuel. The technology, developed by researchers from Nanjing Forestry University and Tsinghua University, uses a two-stage tandem reactor system combining hydro-pyrolysis and hydrogenolysis.



The researchers are now focused on scaling up the catalyst manufacturing process and improving overall system efficiency to support commercial deployment. If successfully industrialized, the technology could help reduce plastic waste, improve resource recovery, and contribute to the aviation industry's transition toward lower-carbon fuels. The breakthrough highlights the growing role of advanced catalytic recycling technologies in supporting the circular plastics economy. By converting discarded plastics into high-value aviation fuel, the process has the potential to address two major global challenges simultaneously—plastic waste management and the development of more sustainable fuel solutions for the aviation sector @July 20, 2026



Liberty Tire Recycling Expands Gulf Coast Network with Three Strategic Acquisitions

Acquisition of All American Tire, Colt Tire Recycling, and Genan's Louisiana operations strengthens Liberty's tyre collection, recycling capacity, and recycled rubber production across Texas and Louisiana.

Liberty Tire Recycling has expanded its Gulf Coast operations through the acquisition of All American Tire Recycling, Colt Tire Recycling, and Genan's Louisiana operations, significantly increasing its tyre collection, processing, and recycled rubber manufacturing capabilities across Texas and Louisiana. The strategic acquisitions strengthen the company's position as North America's leading end-of-life tyre recycler and support its long-term growth strategy. The expansion substantially increases Liberty's regional tyre collection network while adding new processing facilities capable of converting end-of-life tyres into high-quality recycled rubber products. By integrating the newly acquired operations, the company aims to improve operational efficiency, enhance customer service, and expand access to sustainable tyre recycling solutions across the Gulf Coast.



Liberty Tire Recycling operates one of the largest tyre recycling networks in North America, collecting and processing hundreds of millions of end-of-life tyres annually. The company transforms recovered rubber into valuable secondary raw materials used across construction, manufacturing, transportation, and consumer industries, helping reduce waste and conserve natural resources. With these three acquisitions, Liberty further reinforces its leadership in the tyre recycling industry while expanding the availability of recycled rubber materials for customers throughout the Gulf Coast. The investment is expected to strengthen regional recycling infrastructure, improve supply chain resilience, and accelerate the transition toward a more circular and sustainable rubber economy @July 17, 2026.

New Process Converts Mixed Plastic Waste Directly into Hydrogen Fuel

Researchers develop an innovative catalytic technology that transforms mixed plastic waste into clean hydrogen, offering a sustainable solution for plastic recycling and low-carbon energy production.

Researchers have developed a new catalytic process that converts mixed plastic waste directly into hydrogen fuel, providing a promising solution for tackling difficult-to-recycle plastics while generating a valuable clean energy source. Unlike conventional recycling methods that require extensive sorting, the technology can process mixed plastic streams, potentially improving the recovery of post-consumer plastic waste. The process uses an advanced catalytic reaction to break down mixed plastic materials and release high-purity hydrogen, reducing dependence on fossil-fuel-based hydrogen production. By eliminating the need for complex waste separation, the technology could lower processing costs and improve the efficiency of plastic waste management.



The technology also complements emerging chemical recycling approaches by creating an additional pathway for recovering value from end-of-life plastics. As industries seek sustainable alternatives for managing plastic waste, waste-to-hydrogen technologies are attracting increasing attention from both the plastics and energy sectors. Although the process is currently under development, it demonstrates the growing potential of advanced recycling technologies to transform plastic waste into high-value products. With further scale-up and commercialization, the innovation could strengthen plastic circularity while contributing to future hydrogen production and sustainable manufacturing @July 17, 2026.



Jabil Expands India Manufacturing Capacity with New Pune Facility

New factory in Maharashtra more than doubles Jabil's manufacturing footprint in India, strengthening advanced production capabilities and supporting electronics, automotive, and industrial sectors.

Jabil Inc. has expanded its manufacturing presence in India with the inauguration of a new factory in Pune, Maharashtra, significantly increasing its production capacity and reinforcing its long-term commitment to the country's manufacturing sector. Located in the Maharashtra Industrial Development Corporation (MIDC) industrial zone, the new facility expands Jabil's India manufacturing footprint from 500,000 square feet to 1.2 million square feet within a year. The expansion has also increased the company's workforce from 5,000 to nearly 11,000 employees. The new facility will strengthen Jabil's ability to manufacture products for industries including telecommunications, AI cloud data centres, automotive, digital commerce, and industrial equipment. The investment enhances the company's engineering, supply chain, and advanced manufacturing capabilities while supporting growing customer demand across global markets.



The expansion also aligns with the Government of India's Make in India initiative. Maharashtra Chief Minister Devendra Fadnavis said the investment reinforces the state's position as a preferred destination for advanced manufacturing, while Union Minister Ashwini Vaishnaw highlighted its contribution to building a stronger manufacturing ecosystem that supports innovation, industrial growth, and employment. Jabil's new Pune facility underscores India's growing importance in global manufacturing and supply chains. By expanding production capacity and engineering capabilities, the company is well positioned to support future growth while creating new opportunities for suppliers of advanced polymers, precision plastics, electronics components, and manufacturing technologies @July 17, 2026.

Gujarat Polymer Exporters Among First to Benefit from India-UK CETA

Ahmedabad-based polymer manufacturers begin exports to the UK under the India-UK Comprehensive Economic and Trade Agreement, unlocking new duty-free opportunities for India's plastics industry.

The India-UK Comprehensive Economic and Trade Agreement (CETA) has opened new export opportunities for India's polymer industry, with Ahmedabad-based polymer manufacturers among the first businesses to ship products to the United Kingdom under the landmark trade pact. The first consignments, dispatched on 15 July 2026, demonstrate how the agreement is expected to strengthen the global competitiveness of India's plastics and polymer manufacturing sector. Among the seven exporters participating in the inaugural shipment is Shri Ambica Polymer Pvt. Ltd., highlighting the polymer industry's early adoption of the benefits offered under the India-UK CETA. The duty-free market access is expected to improve export prospects for Indian manufacturers supplying polymer-based products to the UK.



The agreement is expected to enhance India's export competitiveness while helping polymer manufacturers diversify into premium international markets. Industry stakeholders believe the agreement will encourage greater investment in polymer manufacturing, value-added plastic processing, and export-oriented production. With improved market access and lower trade barriers, Indian polymer companies are well positioned to expand their presence in the UK and strengthen India's role in the global plastics supply chain @July 16, 2026.



TATMA Joins Tire Industry Project to Strengthen Sustainable Tyre Value Chain

Thailand Automotive Tyre Manufacturers Association becomes the ninth affiliate member of the Tire Industry Project, reinforcing global collaboration on sustainable mobility, circularity, and responsible sourcing.

The Thailand Automotive Tyre Manufacturers Association (TATMA) has joined the Tire Industry Project (TIP) as its ninth affiliate member, strengthening international collaboration to advance sustainability across the global tyre value chain. The membership expands TIP's presence in Southeast Asia, one of the world's most important regions for natural rubber production and tyre manufacturing. TATMA represents Thailand's leading tyre manufacturers and works to promote the country's tyre industry through technological advancement, quality standards, and sustainable manufacturing. By joining TIP, the association will contribute to industry-wide initiatives focused on responsible natural rubber sourcing, circular economy practices, climate action, biodiversity protection, and supply chain transparency.



Thailand is one of the world's largest producers and exporters of natural rubber, making its participation particularly significant for the global tyre industry. TATMA's membership is expected to strengthen cooperation between tyre manufacturers, rubber producers, policymakers, and other stakeholders while supporting sustainable growth across the regional rubber supply chain. The collaboration also reflects the tyre industry's increasing emphasis on collective action to address sustainability challenges. Through knowledge sharing, joint research, and the adoption of best practices, TIP members aim to accelerate progress toward lower-carbon manufacturing, greater material circularity, and responsible sourcing throughout the tyre value chain. With TATMA joining as its ninth affiliate member, the Tire Industry Project further expands its global network and reinforces its commitment to building a more sustainable, resilient, and innovative tyre and rubber industry through cross-border collaboration and industry-wide partnerships @July 16, 2026.

Project INROAD Boosts Rubber Cultivation Across Northeast India and West Bengal

Industry-backed initiative accelerates natural rubber cultivation across Northeast India and West Bengal, strengthening domestic rubber production and supporting smallholder farmers.

Project INROAD (Indian Natural Rubber Operations for Assisted Development) has achieved a major milestone by establishing 1,79,376 hectares of new natural rubber plantations across Northeast India and West Bengal, bringing the initiative close to its target of 2 lakh hectares. Launched in 2021, the project represents the largest expansion of natural rubber cultivation in India within such a short period. The initiative is funded by the Automotive Tyre Manufacturers' Association (ATMA) and implemented by the Rubber Board of India, with support from leading tyre manufacturers including Apollo Tyres, CEAT, JK Tyre, and MRF. The project aims to strengthen India's domestic natural rubber supply while reducing dependence on imports for the tyre manufacturing industry.



Officials expect the expansion to significantly increase natural rubber production in the Northeast, where cultivation now covers around 1.8 lakh hectares, including nearly 50,000 hectares in Assam. The initiative is projected to substantially raise the region's contribution to India's overall rubber production while supporting rural employment and economic development. As Project INROAD approaches its final plantation target, it stands as a landmark public-private partnership linking the tyre industry with agricultural development. By expanding domestic rubber cultivation and strengthening the supply chain, the initiative is expected to enhance raw material security for India's tyre sector while promoting sustainable growth in the natural rubber industry @July 16, 2026.



MRF Ranked India's Most Valuable and Strongest Tyre Brand in Brand Finance 2026

Indian tyre maker secures a place among the world's top three strongest tyre brands, reinforcing its leadership through brand strength, innovation, and consumer trust.

MRF Ltd. has been recognised as India's Most Valuable and Strongest Tyre Brand in the Brand Finance India 100 – 2026 report, further cementing its position as the country's leading tyre manufacturer. The Chennai-based company has also earned a place among the world's top three strongest tyre brands, highlighting its growing global reputation for quality, innovation, and reliability. According to the Brand Finance assessment, MRF achieved a Brand Strength Index (BSI) score of 87.7 out of 100, reflecting exceptional performance across key brand metrics, including customer trust, market leadership, product quality, and brand familiarity. The company also retained its position among India's Top 50 brands across all industries, underscoring the strength of its brand beyond the automotive sector.



The company manufactures tyres for passenger vehicles, commercial vehicles, two-wheelers, off-the-road equipment, aircraft, and motorsports, serving both domestic and international markets. The recognition also reflects MRF's continued focus on innovation, safety, and performance, enabling the company to maintain a strong competitive position in an evolving global tyre market. Its presence in motorsports, original equipment partnerships, and premium replacement tyre segments has further strengthened brand recognition among consumers and industry stakeholders. MRF Chairman and Managing Director K. M. Mammen described the recognition as a reflection of the trust placed in the brand by millions of customers and reaffirmed the company's commitment to delivering high-quality products while continuing to invest in innovation and engineering excellence. The latest Brand Finance rankings highlight the growing global competitiveness of Indian tyre manufacturers. By securing its leadership position in India and ranking among the world's strongest tyre brands, MRF continues to strengthen its international reputation while reinforcing India's presence in the global automotive and rubber manufacturing industries @July 15, 2026.

Indonesia and Morocco Strengthen Trade Cooperation to Expand Food and Agricultural Exports to North Africa

Strategic partnership aims to boost exports of processed foods, fisheries, agricultural products, and halal goods while enhancing Indonesia's trade presence across the North African market.

Indonesia is strengthening its trade partnership with Morocco as part of a broader strategy to expand exports to North Africa, with a strong focus on food, fisheries, agricultural products, and halal goods. The initiative is expected to position Morocco as a gateway for Indonesian exporters seeking access to the wider African market. The cooperation was discussed during high-level meetings between Indonesian and Moroccan officials, where both countries agreed to enhance bilateral trade, investment, and business collaboration. Indonesia views Morocco as a strategic hub for reaching North African markets, while Morocco offers opportunities to strengthen regional distribution networks for Indonesian products.



Indonesia has been actively diversifying its export destinations beyond traditional markets, with Africa emerging as a key growth region. Morocco's strategic location and extensive trade links with neighboring countries make it an attractive entry point for Indonesian companies looking to expand their regional footprint. By strengthening cooperation with Morocco, Indonesia aims to increase exports, deepen economic ties, and support long-term growth in the food, fisheries, and agricultural sectors. The partnership is expected to enhance trade flows while opening new opportunities for businesses serving the rapidly growing North African consumer market @July 15, 2026.



Aliplast Acquires 70% Stake in Kronos Polymer Polska to Expand Plastic Recycling Capacity

Hera Group strengthens its European plastics recycling network through a strategic acquisition that boosts polyethylene recycling capacity and supports circular economy growth.

Aliplast, part of Italy's Hera Group, has signed a binding agreement through its subsidiary Aliplast Polska to acquire a 70% stake in Kronos Polymer Polska, a new company that will be created through the spin-off of Polish polyethylene recycler Kronos Polymer. The acquisition strengthens Aliplast's position as one of Europe's leading plastics recycling companies and expands its presence in the growing Polish recycling market. The transaction includes a newly built recycling facility in Gniew, Poland, equipped with a complete polyethylene (PE) sorting, grinding, and washing line capable of processing 12,000 tonnes per year. The facility will enable Aliplast to perform recycling and plastics regeneration directly within Poland, improving operational efficiency while reducing transportation and logistics requirements.



Aliplast has developed an integrated recycling model that covers the entire value chain—from plastic waste collection and processing to the production of recycled raw materials and finished products. The company manufactures recycled PET, LDPE, PP, and HDPE materials for use in packaging and industrial applications, with a strong focus on traceability, quality, and compliance with European sustainability standards. The investment also aligns with the implementation of the European Union's Packaging and Packaging Waste Regulation (PPWR), which encourages greater use of recycled materials and supports the development of a circular plastics economy. Expanding local recycling infrastructure will help manufacturers secure reliable supplies of recycled polyethylene while meeting increasingly stringent recycled-content requirements. The acquisition is expected to be completed by the end of 2026, subject to customary closing conditions, including completion of the corporate demerger and regulatory approvals. Once finalized, the deal will strengthen Aliplast's European recycling network and reinforce Hera Group's commitment to sustainable resource regeneration and advanced plastics recycling @July 15, 2026.

Malaysia's Natural Rubber Production Rises 9.1% in May 2026

Higher monthly output driven by smallholders despite lower year-on-year production, while rubber prices strengthen and inventories decline.

Malaysia's natural rubber production increased by 9.1% month-on-month to 20,198 tonnes in May 2026, up from 18,515 tonnes in April, according to the Department of Statistics Malaysia (DOSM). The increase reflects stronger monthly output, although production remained 16.7% lower than May 2025, when output reached 24,256 tonnes. Smallholders continued to dominate the country's rubber sector, contributing 89.4% of total production, while estates accounted for the remaining 10.6%. The figures highlight the important role of independent rubber growers in sustaining Malaysia's natural rubber supply.



Rubber prices strengthened during the month, supported by improving global market conditions. The average price of concentrated latex increased 1.1%, while international benchmark prices for Technically Specified Rubber (TSR 20) and the Singapore/Malaysia rubber benchmark also recorded gains, reflecting healthier market sentiment. The latest figures indicate a gradual recovery in monthly production despite year-on-year challenges. With stronger commodity prices, resilient demand for rubber products, and continued contributions from smallholders, Malaysia's natural rubber sector remains well positioned to support the global tyre, automotive, and industrial rubber industries July 14, 2026.



SAPPMA Highlights Quality Plastic Piping Systems as Foundation for Reliable Infrastructure

Industry association urges adoption of certified plastic piping systems and strict quality standards to improve water, sanitation, and infrastructure performance.

The Southern African Plastic Pipe Manufacturers Association (SAPPMA) has emphasized that high-quality plastic piping systems are essential for building reliable, durable, and sustainable infrastructure. The association stressed that certified plastic pipes play a critical role in water supply, sanitation, industrial applications, and municipal infrastructure, helping ensure long-term performance and lower maintenance costs. According to SAPPMA, plastic pipes form the backbone of modern water reticulation and sanitation systems. With increasing urbanisation and renewed investment in infrastructure, the demand for dependable PVC and HDPE piping systems is expected to grow, making quality assurance more important than ever.



Beyond product certification, the association continues to support the industry through technical education, installer training, and engagement with engineers, consultants, and government agencies. These initiatives promote best practices in pipe selection, installation, and maintenance, helping maximise the lifespan and performance of infrastructure projects. Looking ahead, SAPPMA believes growing investments in water infrastructure, housing, mining, and industrial development will drive increased demand for certified plastic piping solutions. By promoting quality manufacturing and engineering excellence, the association aims to strengthen infrastructure resilience while supporting sustainable economic development across Southern Africa @July 14, 2026.

India Targets 60% Recycled Content in Rigid Plastic Packaging by 2028

Revised Plastic Waste Management Rules raise recycled content requirements, accelerating circular economy adoption and boosting demand for high-quality recycled plastics.

India is accelerating its transition towards a circular plastics economy by introducing stricter recycled content requirements for rigid plastic packaging under the amended Plastic Waste Management Rules. The revised regulations require producers, importers, and brand owners to progressively increase the use of recycled plastic, with mandatory recycled content rising to 60% by 2028. The updated rules increase the minimum recycled content requirement for Category I (rigid plastic packaging) from 30% in 2025-26 to 40% in 2026-27, followed by 50% in 2027-28, before reaching 60% in 2028-29. The phased approach is intended to give the packaging industry sufficient time to strengthen recycling infrastructure and secure reliable supplies of high-quality post-consumer recycled (PCR) plastics.



The policy is expected to benefit recyclers, waste management companies, and packaging manufacturers by creating a stable and growing market for recycled plastics. At the same time, brand owners will need to redesign packaging, strengthen procurement strategies, and collaborate with recycling partners to meet the progressively higher recycled-content requirements. Industry experts view the revised regulations as a major step towards reducing plastic waste, increasing resource efficiency, and promoting sustainable packaging. By mandating higher levels of recycled content in rigid plastic packaging, India aims to strengthen its circular economy, stimulate investment in recycling infrastructure, and reduce the environmental impact of plastic packaging across multiple industries @July 14, 2026.



Florette Replaces Plastic Bottles with Cartons in Sustainable Soup Packaging Relaunch

Vegetable soup range transitions to fibre-based Pure-Pak cartons, reducing plastic use while improving recyclability, shelf impact, and logistics efficiency.

Florette has relaunched its range of chilled vegetable soups by replacing PET plastic bottles with Pure-Pak® Sense fibre-based cartons, marking a significant step in its sustainable packaging strategy. The transition is designed to reduce plastic consumption, improve recyclability, and support the company's long-term environmental goals while maintaining product quality and freshness. The new packaging uses Elopak's Pure-Pak® Sense cartons, offering a renewable, paper-based alternative to conventional plastic bottles. In addition to reducing the use of plastic, the cartons provide better protection against light, helping preserve the quality and shelf life of the vegetable soups.



The packaging change supports Florette's broader climate strategy, which includes a target of reducing greenhouse gas emissions by 35% by 2035 compared with 2019 levels. By shifting to renewable carton packaging, the company aims to minimise the environmental footprint of its products while responding to growing consumer demand for sustainable packaging solutions. Florette's move reflects a wider trend across the food and beverage industry, where brands are increasingly replacing rigid plastic packaging with fibre-based alternatives to meet sustainability commitments and evolving regulatory expectations. The relaunch demonstrates how innovative carton packaging can combine product protection, operational efficiency, and environmental performance, supporting the industry's transition towards a more circular packaging economy @July 13, 2026.

RMIT and End Food Waste Australia Launch Sustainable Food Packaging Centre

New research-backed centre will help food and beverage SMEs adopt reusable, recyclable, and compostable packaging while reducing food waste and maintaining product quality.

RMIT University and End Food Waste Australia Cooperative Research Centre (EFW CRC) have launched the Food and Beverage Small and Medium Enterprise (SME) Packaging and Machinery Solution Centre, a new initiative designed to help food manufacturers transition to more sustainable packaging and processing solutions. The centre will provide independent, research-backed guidance to businesses adopting reusable, recyclable, and compostable packaging while ensuring food quality, shelf life, and safety are maintained.



The centre will also serve as a national "source of truth" for SMEs seeking evidence-based advice on packaging design, processing technologies, and manufacturing equipment. Through access to university laboratories, technical consultants, and life-cycle assessment expertise, businesses will be able to make informed decisions based on scientific research rather than relying solely on supplier recommendations. Industry experts highlighted the growing need for packaging that meets evolving regulatory requirements while reducing environmental impact. The initiative will support businesses in areas such as designing recyclable packaging, transitioning to mono-material structures, incorporating recycled content, improving accessibility, reducing packaging waste, and minimising food loss throughout the supply chain. The partnership also focuses on advancing sustainable manufacturing by helping SMEs integrate new packaging materials and processing technologies without compromising operational efficiency. By connecting industry expertise with applied research, the centre aims to accelerate innovation, improve manufacturing performance, and support Australia's transition to a more circular and resource-efficient food packaging industry @July 13, 2026.



India Can Lead the Global Circular Plastics Economy, Says Aliaxis Executive

India can emerge as a global leader in circular plastics with stronger recycling ecosystem, says Aliaxis

India has the potential to become a global leader in the circular plastics economy by strengthening waste collection, recycling infrastructure and recycled-content regulations, according to Ayanish Sen, Chief Procurement Officer at Aliaxis (formerly Manjushree Technopack). Speaking at the 11th Injection, Blow Moulding & PET International Summit & Exhibition organized by ElitePlus in Mumbai, Sen said recent geopolitical events have highlighted the need for resilient supply chains and greater investment in circular economy practices. He noted that disruptions in global crude oil markets have impacted the availability of petrochemical products, warning that future supply chain challenges could be driven by shortages of recycled plastics rather than virgin raw materials. Companies investing in recycled-content capabilities today, he said, will be better prepared for future market uncertainties.

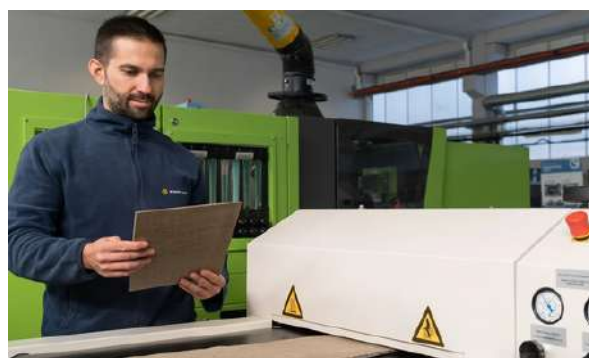


Despite significant growth in recycling capacity, Sen pointed out that India's recycling ecosystem still faces challenges in waste collection, segregation, aggregation and sorting. Limited collection infrastructure and inconsistent quality of post-consumer waste continue to affect the supply of high-quality recycled resin. To strengthen the circular plastics value chain, he called for mandatory source segregation of waste, expanded public collection systems, formalized waste management practices, digital traceability across the recycling chain and standardized quality specifications for recyclable materials. Sen concluded that collaboration among policymakers, brands, recyclers and consumers will be essential to accelerate India's transition toward a circular plastics economy and establish the country as a global leader in sustainable plastics @July 11, 2026.

Aimplas Launches First HII-Plastics Seminar for High-Performance Plastic Materials

Aimplas Launches First HII-Plastics Seminar for High-Performance Plastic Materials

Aimplas, the Plastics Technology Centre based in Valencia, Spain, will host the first edition of HII-Plastics, an international seminar dedicated to advanced plastic materials, on October 6–7, 2026. The event aims to bring together companies, research organizations, technology centers, and innovation experts to explore the latest developments in high-performance plastics and their industrial applications. Designed as a collaborative platform, HII-Plastics will showcase cutting-edge research, real-world industrial challenges, and emerging technologies through technical presentations, poster sessions, and networking opportunities. The seminar seeks to strengthen collaboration across the plastics value chain and encourage new national and international R&D partnerships.



The two-day program is organized into five technical sessions covering advanced composites and structural materials, fire-resistant plastic materials, functional materials and advanced manufacturing processes, energy and dual-use technologies, and industrial coatings with advanced properties. Industry experts from leading organizations will present innovations in composite materials, engineering plastics, flame-retardant technologies, advanced manufacturing, mobility applications, renewable energy, and high-performance coatings. Topics will include next-generation composite structures, sustainable fire-protection solutions, functional polymers, wave-energy applications, and self-healing and anti-icing coating technologies. By bringing together researchers, manufacturers, and technology providers, HII-Plastics aims to accelerate innovation in advanced plastics while supporting the development of high-performance materials for sectors including automotive, aerospace, construction, energy, and industrial manufacturing @July 11, 2026.



APR Expands PCR Certification Program Across the Plastic Supply Chain

APR expands PCR certification across the plastic supply chain

The Association of Plastic Recyclers (APR) has expanded its Post-Consumer Recycled (PCR) Certification Program to certify the presence and percentage of recycled content in both finished and semi-finished plastic products. The move broadens the program beyond recyclers, enabling verification of recycled content claims throughout the plastics value chain. Previously limited to certifying PCR materials in pellet and flake form, the program now includes manufacturers, brand owners, brokers, distributors, traders, and other organizations that produce, buy, sell, or handle PCR materials. Companies can now validate their recycled content claims through independent third-party certification.



The new producer standard is built on ISO chain-of-custody and traceability requirements, providing a structured framework to verify the amount of recycled plastic used in products. Certified organizations will also be featured in the APR Certified PCR Directory, helping businesses identify trusted suppliers of certified PCR materials and packaging. According to Rita Phillip, Program Director of APR PCR Certification, the expanded program strengthens confidence in recycled content claims while meeting the industry's growing demand for transparency and accountability through independent verification.

The certification standard also aligns with RecyClass's Recycled Plastics Traceability Certification, supporting greater harmonization of recycled-content verification across North America and Europe. APR President and CEO Steve Alexander said third-party certification plays a vital role in validating recycled plastic content, as PCR cannot be visually distinguished from virgin plastic. He added that increasing the use of post-consumer recycled plastics is one of the most effective ways to reduce plastic waste and lower dependence on virgin resin @July 11, 2026.

Mitsubishi Chemical Expands Engineering Plastics Portfolio for EV and Electronics Markets

Company strengthens global engineering plastics business with expanded production, advanced R&D, and sustainable material innovations targeting electric vehicles and high-performance electronics.

Mitsubishi Chemical Group is expanding its engineering plastics business to meet growing global demand from the electric vehicle (EV), electronics, and industrial manufacturing sectors. The company is strengthening production capabilities, enhancing research and development, and broadening its portfolio of high-performance polymer materials to support next-generation applications. The expansion focuses on advanced engineering resins, including polycarbonate (PC) and polybutylene terephthalate (PBT), which are widely used in EV battery systems, automotive components, electronic devices, and industrial equipment. These materials offer high strength, heat resistance, dimensional stability, and lightweight performance, making them increasingly important in modern manufacturing.



The company is seeing increasing demand from the automotive industry as manufacturers adopt lightweight polymer components to improve vehicle efficiency and extend EV driving range. Engineering plastics are also gaining traction in advanced electronics, where they provide electrical insulation, flame resistance, durability, and design flexibility. By expanding its engineering plastics business and investing in sustainable materials innovation, Mitsubishi Chemical aims to strengthen its global market position while supporting the transition toward electrification, resource efficiency, and a circular plastics economy @July 10, 2026.



Polytag and MCC Partner to Expand Traceable In-Mould Label Packaging Solutions

Collaboration integrates invisible UV tag technology into in-mould labels, enabling packaging traceability, improved recycling data, and advanced plastic sorting capabilities.

Polytag has partnered with MCC Global IML, a division of Multi-Color Corporation (MCC), to expand the use of traceable in-mould label (IML) solutions for plastic packaging. The collaboration will integrate Polytag's invisible UV tag technology directly into in-mould labels, allowing brands to improve packaging traceability while supporting the transition to a circular plastics economy. The partnership marks the first time Polytag's proprietary UV tag technology has been incorporated into IML packaging, enabling plastic containers to carry invisible digital identifiers without affecting package design or product appearance. These tags can be detected at material recovery facilities, providing valuable information about packaging movement through the recycling system.



The solution also enhances plastic sorting capabilities by enabling recycling facilities to identify tagged packaging with greater accuracy. Improved sorting can increase the recovery of high-quality recyclable plastics, helping produce cleaner recycled material streams suitable for use in new packaging applications. According to the partners, combining MCC's expertise in premium in-mould labelling with Polytag's connected packaging technology creates a scalable solution for food, beverage, personal care, and household product packaging. The collaboration aims to help consumer brands improve traceability without requiring changes to existing package designs or manufacturing processes. As governments and brand owners place greater emphasis on packaging transparency and circularity, digitally connected packaging technologies are becoming increasingly important. The Polytag-MCC partnership demonstrates how intelligent labelling can improve recycling performance, provide measurable sustainability data, and support the development of more efficient closed-loop recycling systems @July 10, 2026.

Tripura Showcases Rubber Sector as Business Conclave Draws ₹1 Lakh Crore Investment Intent

State highlights natural rubber processing, value-added manufacturing, and industrial infrastructure to attract investments and strengthen its rubber industry ecosystem.

Tripura has positioned its natural rubber industry as one of the key growth sectors at the Destination Tripura Business Conclave 2026, where the state secured investment intentions worth more than ₹1 lakh crore through over 250 Memorandums of Understanding (MoUs). The government showcased rubber alongside bamboo, agarwood, tea, agriculture, and natural gas as strategic sectors capable of driving industrial growth and employment. As India's second-largest producer of natural rubber, Tripura is seeking to move beyond raw latex production by attracting investments in rubber processing, value-added manufacturing, and downstream industries.



The government is focusing on creating a complete rubber value chain, encouraging investments not only in primary processing but also in advanced manufacturing, logistics, and export-oriented production. Strengthening downstream industries is expected to increase farmers' incomes, generate employment, and reduce dependence on the sale of raw rubber. By promoting its natural rubber sector as a major investment destination, Tripura aims to strengthen its position in India's rubber industry while attracting domestic and international manufacturers. The proposed investments are expected to accelerate industrialisation, enhance value addition, and establish the state as a competitive hub for rubber processing and rubber product manufacturing in Northeast India @July 10, 2026.



CEAT Invests ₹2.74 Crore in Tyresnmore Online Through Rights Issue

Tyre maker strengthens its wholly owned digital retail subsidiary to support growth in online tyre sales and automotive service offerings.

CEAT Ltd. has approved an investment of up to ₹2.74 crore in its wholly owned subsidiary, Tyresnmore Online Private Limited, by subscribing to its rights issue. The investment is intended to strengthen the subsidiary's financial position and support the continued expansion of its online tyre retail and automotive service business. The rights issue involves CEAT subscribing to 22,447 equity shares of Tyresnmore Online. The transaction will be completed through a cash investment via normal banking channels, with the allotment of shares expected to be completed by 31 July 2026. Following the investment, Tyresnmore will remain a 100% wholly owned subsidiary of CEAT.



Established in 2014 and headquartered in New Delhi, Tyresnmore Online operates in the automotive aftermarket, offering online sales of tyres, batteries, and accessories. The company also provides value-added services such as tyre installation, fitment, wheel balancing, and wheel alignment, catering to both individual and fleet customers. Tyresnmore has demonstrated consistent business growth, reporting a turnover of ₹43.29 crore in FY26, reflecting increasing demand for digital tyre retail and integrated vehicle maintenance services. The latest capital infusion is expected to support business expansion, technology upgrades, and the enhancement of customer experience across its online platform. The investment aligns with CEAT's broader strategy of strengthening its digital presence and expanding customer touchpoints beyond traditional dealership networks. As consumer preference for online automotive services continues to grow, Tyresnmore serves as an important channel for delivering tyres and related services directly to customers. The move also reflects CEAT's continued focus on building a robust omnichannel retail ecosystem that combines digital commerce with professional installation and after-sales support. By reinforcing its subsidiary's capabilities, the company aims to improve service accessibility while capitalizing on the growing demand for convenient, technology-enabled automotive solutions @ July 9, 2026.

Garware Fulflex Expands US Healthcare Manufacturing with Texas Facility Acquisition

Indian elastics manufacturer strengthens its global healthcare business by acquiring a 300,000-square-foot automated medical products manufacturing facility in Jacksonville, Texas.

Garware Fulflex has completed the acquisition of a 300,000-square-foot, fully automated medical products manufacturing facility in Jacksonville, Texas, significantly expanding its healthcare manufacturing footprint in North America. The acquisition marks a major milestone in the company's strategy to build a globally integrated healthcare manufacturing platform and strengthen its presence in the world's largest medical products market. Situated on a 30-acre campus, the Jacksonville facility employs more than 250 people and manufactures a broad portfolio of critical medical products supplied to healthcare providers across North America and international markets.



Garware Fulflex, traditionally known for manufacturing precision elastics and polymer-based products for healthcare, textiles, hygiene, sports, and industrial applications, has increasingly diversified into medical manufacturing. The expanded US footprint is expected to enhance collaboration with leading healthcare companies while improving responsiveness to customer demand across North America. With the Jacksonville acquisition, Garware Fulflex continues to strengthen its position as a global healthcare manufacturing partner. The investment reflects the company's long-term vision of expanding international operations, increasing production capabilities, and delivering innovative, high-quality medical products to healthcare markets worldwide @ July 9, 2026.



DePoly Launches PET Depolymerization Plant to Advance Circular Plastic Recycling

Swiss startup commissions showcase facility that converts PET plastic waste into virgin-quality raw materials, supporting scalable chemical recycling for food-grade and textile applications.

Swiss cleantech startup DePoly has inaugurated its first PET depolymerization showcase plant, marking a significant milestone in the commercialization of advanced plastic recycling technology. The facility demonstrates the company's proprietary process for converting post-consumer and post-industrial PET (polyethylene terephthalate) waste into virgin-quality raw materials, supporting a more circular plastics economy. The newly commissioned plant is designed to validate DePoly's chemical recycling technology at a larger scale and serve as a bridge toward future commercial production facilities. Unlike conventional mechanical recycling, the process breaks PET plastic down into its original chemical building blocks, enabling the manufacture of new plastics with quality equivalent to virgin resin.



As governments introduce stricter recycled-content requirements and sustainability targets, advanced recycling technologies such as PET depolymerization are attracting growing investment. The ability to recover virgin-quality feedstocks from difficult-to-recycle plastics is expected to play an important role in meeting circular economy objectives while reducing plastic waste and carbon emissions.

With the launch of its showcase plant, DePoly takes a significant step toward commercializing scalable PET depolymerization technology. The development highlights the increasing role of chemical recycling in transforming plastic waste into valuable resources and supporting the production of high-quality recycled materials for packaging, textiles, and other industrial applications @July 9, 2026.

Researchers Develop Bio-Based Polymers with High Strength and Superior Elasticity

New sustainable polymers derived from renewable feedstocks combine excellent tensile strength, flexibility, and recyclability, offering a greener alternative to conventional plastics.

Researchers have developed a new class of bio-based polymers that combines high tensile strength, excellent elasticity, and recyclability, representing a significant advancement in the search for sustainable alternatives to conventional petroleum-based plastics. The study demonstrates that renewable raw materials can be engineered into high-performance polymers suitable for demanding industrial applications without compromising mechanical performance. The research focuses on creating polymers from renewable bio-based feedstocks, reducing dependence on fossil resources while maintaining properties comparable to—or better than—many conventional synthetic plastics. The newly developed materials exhibit an exceptional balance of strength and flexibility, enabling them to withstand substantial stretching without permanent deformation or mechanical failure.



By integrating advanced polymer chemistry with renewable raw materials, the study provides a pathway toward replacing fossil-based plastics in high-value applications while supporting global efforts to reduce greenhouse gas emissions and improve resource efficiency. As governments and industries continue to promote circular economy initiatives, the development of high-performance bio-based polymers is expected to play an increasingly important role in the transition toward sustainable manufacturing. Future research will focus on scaling production, optimizing processing techniques, and expanding the range of commercial applications for these next-generation renewable polymers @July 8, 2026.



LYB and Mondelez Launch Chocolate Packaging Made with 75% Recycled Plastic

New Marabou chocolate wrappers use chemically recycled plastics through a certified mass balance approach, advancing circular packaging for food applications.

LyondellBasell (LYB) has partnered with Mondelez International, Amcor, and Taghleef Industries to introduce a new flexible packaging solution for Marabou chocolate bars made using recycled plastic. The collaboration marks an important step in advancing circular packaging by converting difficult-to-recycle post-consumer plastic waste into high-quality, food-grade packaging materials. The new packaging incorporates LYB CirculenRevive™ polymers produced through an ISCC PLUS-certified mass balance process.



While the polymers are attributed with 100% recycled feedstock, the finished Marabou packaging contains 75% recycled content, helping reduce the use of virgin fossil-based plastics without compromising food packaging performance or safety. The packaging innovation also supports the European Union's circular economy objectives and helps prepare the industry for the Packaging and Packaging Waste Regulation (PPWR), which introduces higher recycled-content expectations for packaging.

By demonstrating that chemically recycled plastics can meet stringent food-contact requirements, the project highlights the growing role of advanced recycling technologies in achieving packaging sustainability goals. The collaboration reflects increasing momentum among global packaging and consumer goods companies to incorporate recycled plastics into food packaging without compromising quality or safety. By combining chemical recycling, certified mass balance accounting, and cross-industry collaboration, LYB and Mondelez are helping establish scalable solutions that reduce plastic waste while supporting the transition to a more circular and resource-efficient packaging industry @July 8, 2026.

How Shrimp Shells Are Being Turned Into 'Carbon Negative' Fuel, Food and Construction Materials

Engineers in Singapore have developed a new, multistep chemical process that transforms organic waste into useful, sustainable products

In low-lying Singapore, electrochemical engineer Li Hong has found a creative way to displace some of the city-state's dependence on planet-warming natural gas. Using a new, multistep process, Li and his colleagues have figured out how to perform a surprising bit of climate-helping alchemy by transforming carbon-rich organic trash like shrimp shells into products the island nation needs, including hydrogen gas, food and biogenic calcium carbonate—a white salt used in products ranging from cement to antacids. Li and his team at Singapore's Nanyang Technological University report that by diverting waste from the landfill, and by processing it in just the right way, their laboratory proof-of-concept system can produce carbon-negative hydrogen gas. "Carbon negative" means that, overall, the process removes more heat-trapping carbon dioxide from the atmosphere than it produces.



One man, Henning Johansen, is doing his part to make construction materials more sustainable. On the island of Laeso in Denmark, he is thatching roofs with eelgrass. The saltwater plant is remarkably effective at removing carbon dioxide from the environment and storing it. Today, most hydrogen gas is produced by reacting natural gas with steam. This is known as "gray hydrogen." There's also a growing supply of "green hydrogen," which is made using renewable energy like solar or wind @July 8, 2026.



Michelin Expands North India Retail Network with Two New Tyre & Service Centres

New Michelin Tyres & Services outlets in Amritsar and Panchkula strengthen the company's premium retail presence and enhance customer access to advanced tyre solutions.

Michelin India has expanded its retail footprint in North India with the launch of two new Michelin Tyres & Services (MTS) centres in Amritsar, Punjab, and Panchkula, Haryana. The new outlets are part of the company's strategy to strengthen its presence in high-growth automotive markets while providing customers with premium tyre products and professional vehicle maintenance services. The Amritsar facility has been established in partnership with National Auto, while the Panchkula centre has been launched in collaboration with Universal Tyres. Each outlet spans approximately 5,000 square feet and is equipped to offer a comprehensive range of Michelin passenger car and two-wheeler tyres alongside advanced automotive service solutions.

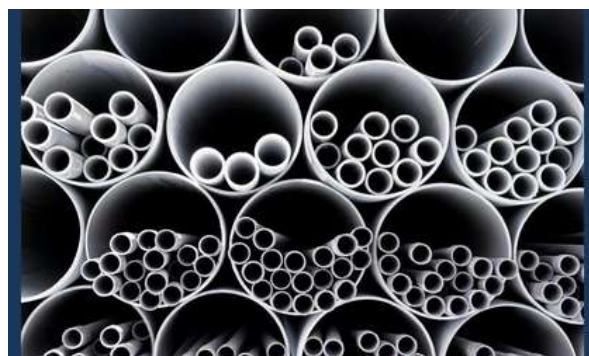


The latest expansion follows Michelin India's ongoing investment in its retail network, with recent additions in cities including Pune, Mumbai, Noida, Bengaluru, and Kochi. The company currently operates an expanding network of Michelin Tyres & Services centres nationwide, reflecting its focus on improving customer accessibility and enhancing the premium tyre ownership experience. With the addition of the Amritsar and Panchkula outlets, Michelin continues to reinforce its presence in India's premium tyre segment. The expansion aligns with the company's long-term growth strategy of combining high-performance tyre technology with comprehensive after-sales support, helping meet the evolving mobility needs of Indian consumers @July 7, 2026.

Turkey Reviews Anti-Dumping Duties on PVC Imports from Germany and the US

Government launches investigation into existing anti-dumping measures on suspension PVC as trade dynamics and global supply chains continue to evolve.

Turkey has initiated a review of its long-standing anti-dumping duties on suspension polyvinyl chloride (PVC) imports from Germany and the United States, a move that could reshape trade flows in one of the country's key polymer markets. The investigation was officially launched on 3 July following a request from Petkim, Turkey's sole domestic polymer producer, and is expected to be completed within one year, with the possibility of a six-month extension. The review will assess whether the existing PVC anti-dumping duties remain necessary under current market conditions. Industry observers suggest that the investigation could potentially lead to changes in the existing tariff structure, including the possible removal or revision of duties on imports from Germany, depending on the findings.



PVC is one of the world's most widely used plastics, finding applications in pipes, fittings, construction materials, window profiles, cables, medical products, and packaging. Any changes to Turkey's anti-dumping policy could influence raw material pricing, supply availability, and competitiveness for downstream plastics processors that rely on imported PVC resin.

The outcome of the review will be closely monitored by polymer producers, converters, and exporters, as it could have broader implications for regional PVC trade and the competitiveness of Turkey's plastics manufacturing sector. With global trade policies continuing to evolve, the investigation highlights the growing importance of balancing domestic industry protection with stable access to essential raw materials @July 7, 2026.



European Commission Establishes Clear Rules for Chemically Recycled Plastic Content in PET Bottles

New EU methodology standardizes the calculation, verification, and reporting of chemically recycled content, providing greater transparency and investment certainty for the plastics recycling industry.

The European Commission has adopted new rules establishing a harmonized methodology for calculating, verifying, and reporting chemically recycled plastic content in single-use PET beverage bottles. The framework provides long-awaited regulatory clarity for the plastics industry and creates a standardized system for recognizing chemically recycled materials under the European Union's recycled-content requirements. The new methodology is the first of its kind in the EU and applies a mass balance accounting approach, allowing manufacturers to attribute recycled content to new plastic products when recycled and virgin feedstocks are processed together in advanced recycling facilities. The rules are designed to ensure transparency, prevent double counting, and establish consistent reporting across the industry.



This will help create a level playing field for recyclers while enhancing the credibility of recycled plastic content used in packaging and beverage containers. The adoption of these rules represents an important milestone in the EU's broader circular economy strategy. By providing a clear regulatory framework for chemically recycled plastic content, the Commission aims to accelerate innovation in advanced recycling, increase the availability of high-quality recycled plastics, and help the packaging industry meet ambitious sustainability and recycled-content targets over the coming decade @July 7, 2026.

Michelin Completes Tex Tech Industries Acquisition to Expand Advanced Polymer Composites Business

Acquisition strengthens Michelin's specialty textiles and high-performance composite materials portfolio, accelerating growth beyond the tyre industry.

Michelin has completed its acquisition of Tex Tech Industries, reinforcing its Polymer Composite Solutions business and expanding its presence in high-performance specialty materials beyond the traditional tyre sector. The transaction, first announced in January 2026, was finalized after receiving all required regulatory approvals and forms part of Michelin's long-term diversification strategy. Founded in 1904 and headquartered in Maine, USA, Tex Tech Industries is a leading designer and manufacturer of specialty textiles, engineered fabrics, and coated materials used in demanding industrial applications. Its products serve sectors including aerospace, defence, aviation, industrial manufacturing, and advanced composites, making the company a strong strategic fit for Michelin's growing polymer composites business.



The company also plans to establish Polymer Composite Solutions as a dedicated reporting segment, reflecting the increasing importance of non-tyre businesses within its global operations. With the completion of the Tex Tech acquisition, Michelin continues to diversify its business beyond tyres, strengthening its capabilities in advanced materials for aerospace, defence, healthcare, industrial manufacturing, and other high-growth sectors. The move reinforces the company's ambition to become a global leader in engineered polymer composite solutions while supporting long-term innovation and sustainable industrial development @July 6, 2026.



Gujarat to Build Advanced Rubber Dams to Expand Irrigation in Remote Regions

State adopts air-filled rubber dam technology to improve water storage, groundwater recharge, and year-round irrigation for farmers across remote districts.

The Gujarat government has approved the construction of two air-filled rubber dams to strengthen irrigation infrastructure and improve water availability in remote parts of the state. The projects form part of the 'Catch the Rain' initiative and are designed to enhance water conservation, groundwater recharge, and agricultural productivity while introducing advanced hydraulic engineering technologies. The two projects are being developed at Rajvasana in Chhota Udepur district and Pathakwadi in Tapi district. Together, the rubber dams will increase water storage capacity, provide reliable irrigation to thousands of hectares of farmland, and benefit farmers across more than 25 villages by ensuring water availability during both the Kharif and Rabi cropping seasons.



Once completed, it will supply irrigation water to nearly 650 hectares of farmland in surrounding villages where conventional dam construction was not technically feasible due to local terrain conditions. Both projects will feature SCADA (Supervisory Control and Data Acquisition) systems, enabling operators to remotely monitor and control the inflation and deflation of the dams.

This automation improves operational efficiency, enhances safety during flood events, and reduces maintenance requirements compared with traditional gated structures. Officials believe the adoption of rubber dam technology will strengthen Gujarat's climate-resilient water management strategy by improving irrigation reliability, increasing groundwater levels, and supporting sustainable agricultural development. The projects also demonstrate the growing use of smart infrastructure solutions to address water scarcity while protecting river ecosystems and rural communities@July 6, 2026.

Student Designers Showcase Sustainable Plastics Innovation in 2026 Design Competition

UK's leading plastics design competition crowns joint winners for innovative board games that combine sustainability, functionality, and commercial potential.

The 2026 Design Innovation in Plastics (DIP) competition has recognised the next generation of product designers, with two students sharing first place for the first time in the event's history. The annual competition challenged university students to design an original game made primarily from plastics, with a strong emphasis on sustainability, functionality, manufacturability, and commercial potential. This year's joint winners were Isaac Faruque from Brunel University for "Cross Connect", a two-player strategy game featuring a rotating dial system, and Maya Pai from Aston University for "Honeycomb Havoc", a dynamic marble-based board game designed around a twisting honeycomb maze. Judges praised both concepts for their creativity, strong engineering principles, and readiness for commercial development.



In addition to cash prizes, the winning students receive professional work placements with leading design and manufacturing companies, industry mentoring, and membership opportunities with IOM3. By connecting academic talent with the plastics industry, the competition continues to promote sustainable product development, responsible material selection, and innovation that supports the future of plastics manufacturing @ July 6, 2026.



Kumho Tyre Accelerates Sustainable Materials Strategy to Achieve 2045 Net-Zero Goal

Tyre maker expands use of recycled and bio-based materials while advancing low-emission technologies and circular manufacturing to support carbon neutrality.

Kumho Tyre is intensifying its research and development efforts in sustainable tyre materials as part of its long-term strategy to achieve net-zero greenhouse gas emissions by 2045. The company is expanding the use of recycled and bio-based raw materials while developing advanced tyre technologies that reduce environmental impact without compromising performance. The South Korean tyre manufacturer has outlined a roadmap to increase the share of sustainable materials in its products from the current level to 40% by 2030, with the ultimate objective of manufacturing tyres using 100% sustainable materials by 2045. The initiative supports the company's broader carbon neutrality strategy and aligns with international climate goals.



Kumho views sustainable material innovation as a key competitive advantage as automotive manufacturers and consumers increasingly demand environmentally responsible mobility solutions. The company believes that combining recycled materials, renewable resources, and advanced tyre engineering will play a crucial role in reducing carbon emissions while maintaining product safety, durability, and performance. As regulatory requirements and sustainability expectations continue to evolve worldwide, Kumho's investment in sustainable tyre materials reinforces its commitment to supporting a low-carbon future. By accelerating the development of circular material technologies and environmentally friendly tyre solutions, the company aims to strengthen its position in the global tyre industry while contributing to a more sustainable mobility ecosystem @July 4, 2026.

Vietnam Accelerates Rubber Traceability Ahead of EU Deforestation Regulation Deadline

Rubber industry strengthens digital traceability and sustainable sourcing to comply with the EU Deforestation Regulation (EUDR) and safeguard export competitiveness.

Vietnam's rubber industry is accelerating the adoption of digital traceability systems as the implementation deadline for the European Union Deforestation Regulation (EUDR) approaches. The initiative aims to ensure that Vietnamese natural rubber exports meet the EU's stringent requirements for deforestation-free production while maintaining access to one of the country's most important export markets. The EUDR requires companies exporting rubber and other specified commodities to the European Union to demonstrate that their products are legally produced, fully traceable, and not linked to deforestation or forest degradation after the regulation's cut-off date. Compliance will require comprehensive documentation covering the entire supply chain, from plantation to export.



Vietnam is also developing national forest databases, risk assessment systems, and compliance guidelines to support businesses in meeting EUDR requirements. These initiatives are expected to improve monitoring of production areas while strengthening sustainable forest management and environmental governance. As global demand grows for responsibly sourced raw materials, the country's investment in rubber traceability is expected to reinforce its position as one of the world's leading natural rubber suppliers. By combining digital technologies with sustainable production practices, Vietnam aims to ensure continued access to European markets while supporting the long-term resilience and competitiveness of its rubber industry @July 4, 2026.



Tejveer Singh Urges Plastics Industry to Adopt Advanced Recycling Technologies for Higher Quality

Chemicals Secretary calls for greater investment in advanced recycling, R&D, and global best practices to strengthen India's circular plastics economy.

India's plastics industry should shift its focus from recycling volume to higher-quality, value-added recycling by adopting advanced technologies and global best practices, according to Tejveer Singh, Secretary, Department of Chemicals and Petrochemicals. Speaking at the 3rd Global Conclave on Plastic Recycling and Sustainability (GCPRS 2026) in New Delhi, Singh emphasized that technological innovation will be key to strengthening India's global competitiveness in plastic recycling. While acknowledging that India is among the world's leading plastic recycling nations, Singh said the industry's next phase of growth should focus on producing high-quality recycled materials capable of meeting international standards. He stressed that improved quality and greater value addition are essential to supporting exports and advancing the country's circular economy objectives.



Industry leaders participating in the conclave echoed the need for stronger collaboration between government, industry, and academia to accelerate the adoption of circular economy principles. With increasing global demand for sustainable materials and recycled plastics, stakeholders agreed that innovation, technology adoption, and quality-focused recycling will be essential for positioning India as a global leader in advanced plastic recycling @July 4, 2026.

Pirelli Expands Cyber Tyre Technology with RideSense Integration for Smarter Vehicle Safety

Partnership enhances connected tyre capabilities by combining real-time tyre monitoring with intelligent vehicle data for improved safety, performance, and predictive maintenance.

Pirelli has expanded the capabilities of its Cyber Tyre platform through the integration of RideSense technology, further advancing connected tyre solutions that enhance vehicle safety, driving performance, and predictive maintenance. The collaboration represents another step in the evolution of intelligent mobility, where tyres actively communicate real-time information to vehicle systems. Pirelli's Cyber Tyre technology features embedded sensors inside the tyre that continuously monitor critical operating parameters such as pressure, temperature, load, and overall tyre condition. By transmitting this information directly to the vehicle, the system enables more accurate monitoring than traditional indirect tyre pressure monitoring systems (TPMS), allowing drivers and fleet operators to make informed maintenance decisions.



With growing demand for connected vehicles and intelligent transportation solutions, the expanded Cyber Tyre platform demonstrates how digital technologies are reshaping the tyre industry. By combining embedded sensors, real-time analytics, and vehicle connectivity, Pirelli aims to deliver next-generation tyre solutions that support smarter, safer, and more sustainable mobility @July 3, 2026.



California Finalizes Landmark Microplastics Regulations Under Safer Consumer Products Program

New rules classify microplastics as a candidate chemical, paving the way for stricter oversight of consumer products and driving innovation in safer material alternatives.

California has finalized new microplastics regulations by adding microplastics to the Candidate Chemicals List under the state's Safer Consumer Products (SCP) Program, marking a significant step toward tighter oversight of products that may contribute to microplastic pollution. The regulation enables state authorities to identify and evaluate consumer products containing or generating microplastics and, where necessary, require safer alternatives or other regulatory actions. The measure, adopted by the California Department of Toxic Substances Control (DTSC), is intended to reduce human and environmental exposure to microplastics, which have been detected in water, soil, air, wildlife, and the human body. While the long-term health impacts continue to be studied, growing scientific evidence has prompted regulators to strengthen preventive measures.



Environmental organizations, however, have welcomed the move as an important milestone in addressing one of the fastest-growing forms of plastic pollution. They believe the regulation will encourage manufacturers to develop innovative materials and product designs that reduce microplastic generation while supporting broader sustainability and circular economy objectives. California has long been at the forefront of environmental regulation, and the inclusion of microplastics in the SCP framework reinforces its leadership in tackling emerging pollution challenges. The latest action is expected to influence product design, material innovation, and regulatory discussions well beyond the state, as governments and industries worldwide seek effective strategies to reduce microplastic pollution and improve environmental protection @July 3, 2026.

3rd Global Conclave on Plastic Recycling and Sustainability Opens in New Delhi

Industry leaders, policymakers, and technology providers gather to advance plastic recycling, circular economy solutions, and sustainable waste management practices.

The 3rd Global Conclave on Plastic Recycling and Sustainability (GCPRS 2026) commenced at Bharat Mandapam in New Delhi, bringing together industry leaders, policymakers, researchers, recyclers, and technology providers to discuss innovative solutions for plastic waste management and circular economy development. The four-day event is widely recognized as one of India's leading platforms dedicated to plastic recycling and sustainability. Organized jointly by the All India Plastics Manufacturers' Association (AIPMA) and the Chemicals & Petrochemicals Manufacturers Association (CPMA) with support from the Department of Chemicals and Petrochemicals (DCPC), the conclave aims to promote collaboration across the plastics value chain while showcasing the latest advancements in recycling technologies and sustainable materials.



According to industry estimates presented at the event, the Indian recycled plastics market is projected to reach USD 3.81 billion by 2032, growing at a CAGR of 10.95%, while the global plastic recycling market is expected to reach USD 80.5 billion by 2033. These projections underscore the increasing importance of recycling technologies and sustainable business models in the future of the plastics industry. The 3rd Global Conclave on Plastic Recycling and Sustainability is expected to serve as a catalyst for innovation, collaboration, and policy dialogue, helping accelerate India's transition toward a more sustainable and circular plastics economy @July 3, 2026.



Milliken Opens Polymer Solutions Pilot Plant in Pune to Accelerate Materials Innovation

State-of-the-art pilot facility strengthens polymer process development, testing, and scale-up capabilities to support advanced material innovation for global markets.

Milliken & Company has inaugurated a state-of-the-art Polymer Solutions Pilot Plant in Pune, India, strengthening its global innovation network and enhancing its ability to develop and commercialize advanced polymer solutions. The new facility is designed to accelerate product development by enabling customers to validate formulations and manufacturing processes under real-world production conditions before full-scale commercialization. The pilot plant supports end-to-end processing across a wide range of formulation types, including powders, doughs, pastes, and liquid systems. Equipped with advanced pilot-scale machinery, the facility can perform mixing, extrusion, granulation, drying, and milling, allowing engineers to simulate diverse manufacturing environments and optimize production processes with greater precision.



Milliken has been steadily expanding its presence in India through investments in research, technical services, and manufacturing capabilities. The Pune pilot plant complements the company's broader strategy of supporting customers with localized expertise while advancing next-generation polymer technologies that improve resource efficiency, processing performance, and product sustainability. By establishing the new Polymer Solutions Pilot Plant in Pune, Milliken aims to strengthen collaboration with customers, accelerate innovation, and support the development of advanced materials that address evolving market needs across global manufacturing industries @July 2, 2026

Plasnomic and Industry Partners Launch Pilot to Standardize Textured Plastic Parts Repair

New industry-first pilot aims to validate repair methods for textured automotive plastic components, reducing waste and advancing circular repair practices.

Plasnomic, together with a group of industry partners, has launched the world's first pilot programme dedicated to repairing textured automotive plastic parts, marking a significant step toward reducing plastic waste in the collision repair industry. The initiative is designed to establish standardized repair processes for textured plastic components that are typically replaced rather than repaired after vehicle damage. The pilot focuses on validating repair techniques for textured plastic surfaces commonly found on modern vehicles, including bumper covers, trims, wheel arch mouldings, and other exterior components. These parts often present unique repair challenges because maintaining the original surface texture is more complex than repairing smooth plastic panels.



The pilot also brings together material suppliers, repair specialists, equipment manufacturers, and collision repair experts to benchmark repair performance across different products and technologies. The findings are expected to contribute to future training programmes, certification systems, and OEM-aligned repair guidelines for textured plastic components. As the automotive industry continues to prioritise sustainability and circular manufacturing, initiatives such as this pilot demonstrate how advanced plastic repair technologies can reduce waste while maintaining high repair standards. By developing validated repair methods for textured plastic parts, Plasnomic and its partners are helping pave the way for a more resource-efficient and environmentally responsible collision repair industry @July 2, 2026.



DUNLOP Group Reinforces Sustainability Commitment with Focus on Carbon Neutrality and Circular Economy

The company outlines its long-term ESG strategy, highlighting climate action, resource efficiency, innovation, and responsible manufacturing across its global operations.

Sumitomo Rubber Industries (DUNLOP Group) has reaffirmed its commitment to sustainable growth by placing environmental responsibility, social value creation, and strong corporate governance at the core of its long-term business strategy. The company says its sustainability initiatives are closely aligned with its vision of delivering innovative products and services while contributing to a more sustainable society. As part of its long-term strategy, R.I.S.E. 2035, the group is accelerating efforts to reduce greenhouse gas emissions, improve resource efficiency, and promote circular manufacturing across its global operations. The company aims to minimise its environmental footprint by expanding the use of renewable energy, improving production efficiency, and increasing the adoption of recycled and sustainable materials in its products.



Through its sustainability roadmap, the DUNLOP Group seeks to contribute to global climate goals while driving innovation in the tyre and rubber industry. The company believes that combining technological advancement with responsible manufacturing will enable it to create lasting value for society and support the transition toward a low-carbon, circular economy @July 2, 2026.

Alliance Report Highlights Advanced Mechanical Recycling for Flexible Plastic Packaging

New study outlines technologies, policy support and investment strategies to increase recycled content in flexible plastic packaging.

The Alliance to End Plastic Waste (AEPW) has released a comprehensive report outlining how advanced mechanical recycling can significantly improve the recovery and reuse of discarded flexible plastic packaging. The study presents a technical and economic roadmap for processing up to 50,000 metric tonnes of flexible plastic waste annually, demonstrating the potential to produce premium recycled materials suitable for demanding packaging applications. Titled "The Quest for Quality: Scaling Advanced Mechanical Recycling to Meet Recycled Content Targets for Flexibles," the 34-page report concludes that advanced mechanical recycling technologies can enable the production of recycled plastics containing more than 30% recycled content, making them suitable for high-performance flexible packaging.



The report is intended as an open-source resource for recyclers, brand owners, policymakers and technology providers seeking practical strategies to improve the recycling of flexible plastic packaging while supporting global sustainability and recycled-content objectives. As governments worldwide introduce stricter regulations on plastic waste and recycled content, the findings provide valuable guidance for companies looking to modernize recycling operations and develop higher-value recycled materials. For the plastics and packaging industry, the report reinforces that combining innovation, supportive policy frameworks and value chain collaboration will be key to scaling flexible packaging recycling and achieving long-term circularity goals @June 30, 2026.



IMCD Expands Southeast Asia Presence with Acquisition of Thai Plastics Distributor Merit Solution

Strategic acquisition strengthens IMCD's advanced materials and plastics portfolio in Thailand, enhancing technical expertise and regional customer support.

IMCD has announced the acquisition of Merit Solution Co., Ltd., a leading distributor of advanced materials and compounding solutions in Thailand, reinforcing its presence in Southeast Asia's rapidly expanding plastics and specialty materials market. The transaction is expected to strengthen IMCD's capabilities in serving customers across key industries, including automotive, electronics, consumer goods, and industrial manufacturing. Merit Solution has built a strong reputation in Thailand as a distributor of engineering plastics, performance polymers, additives, and compounding materials. By integrating the company's expertise into its regional operations, IMCD aims to broaden its advanced materials portfolio while enhancing technical support and value-added services for customers throughout Southeast Asia.



Following completion of the transaction, Merit Solution will become part of IMCD's Advanced Materials business, allowing both companies to combine their technical expertise, market knowledge, and customer relationships. The acquisition is expected to create new growth opportunities while supporting innovation across Thailand's plastics and manufacturing industries @June 29, 2026.

JK Tyre and NIE Mysuru Sign MoU to Advance AI-Driven Automotive Research

Industry-academia partnership will focus on AI-based tyre inspection, predictive analytics, research collaboration, and hands-on learning for engineering students.

The National Institute of Engineering (NIE), Mysuru, and JK Tyre & Industries have signed a Memorandum of Understanding (MoU) to strengthen industry-academia collaboration in automotive research, innovation, and technology development. The partnership aims to bridge the gap between academic research and industrial applications while equipping engineering students with practical experience in emerging technologies. The agreement was signed by Dr. Rohini Nagapadma, Principal of NIE Mysuru, and Dr. Arun Jaura, Chief Technology Officer of JK Tyre. The collaboration will promote joint research projects, knowledge exchange, innovation initiatives, and student engagement in real-world industrial challenges.



JK Tyre stated that the collaboration reflects its continued commitment to fostering innovation through strong industry-academia partnerships. By combining the company's technological expertise with NIE's academic capabilities, the initiative seeks to accelerate the development of AI-driven manufacturing solutions while nurturing a skilled workforce prepared for the future mobility ecosystem. The MoU also aligns with the broader trend of increasing collaboration between higher education institutions and industry, enabling students to develop industry-relevant skills while supporting companies in solving complex engineering and manufacturing challenges through research-led innovation. With artificial intelligence, predictive analytics, and smart manufacturing becoming integral to the automotive industry, the partnership between JK Tyre and NIE Mysuru is expected to contribute to technological advancement, talent development, and innovation across India's automotive sector @June 29, 2026.



Sumitomo Riko Establishes Automotive R&D Centre in India to Drive EV and Mobility Innovation

New Haryana-based research facility will accelerate product development for electric vehicles, motorcycles, and next-generation mobility solutions tailored to the Indian market.

Sumitomo Riko Co. Ltd. has announced the establishment of a new automotive research and development centre in Haryana, India, marking a significant investment in one of the world's fastest-growing automotive markets. The new subsidiary, SumiRiko Research & Development India Pvt. Ltd. (SRK-RDI), is scheduled to begin operations in September 2026 and will strengthen the company's ability to develop products tailored to the evolving needs of the Indian automotive industry. The decision comes as India's automotive sector continues to expand, driven by rising vehicle production, increasing electrification, and stricter environmental regulations. Sumitomo Riko said the new R&D centre will enable faster responses to customer requirements while supporting the development of advanced technologies for both passenger vehicles and motorcycles.



Industry analysts view the investment as another sign of India's growing importance as a global automotive engineering and innovation hub. With increasing investments from international component manufacturers, the country continues to attract research, development, and advanced manufacturing projects that support the transition toward electric and sustainable mobility. By establishing its first dedicated R&D centre in India, Sumitomo Riko is positioning itself to respond more effectively to local customer needs while contributing to the advancement of automotive technologies that will shape the future of mobility in India and beyond @June 29, 2026.

SIBUR Launches New HDPE Grade to Enhance Beverage Closure Cap Performance

Advanced Bimodal Polyethylene Grade Supports High-Speed Production, Reliable Sealing, and Improved Beverage Packaging Quality

Russia's leading polymer producer, SIBUR, has introduced HD21550 CC, a new bimodal high-density polyethylene (HDPE) grade developed specifically for manufacturing 38 mm beverage closure caps used on juice, dairy, tea, and other beverage containers. The new material is designed to help packaging manufacturers improve production efficiency while delivering superior cap performance and product protection. HD21550 CC is suitable for both injection moulding and compression moulding, offering processors greater manufacturing flexibility. The new grade was engineered to meet the increasing demands of closure manufacturers, where stable processing on high-speed production lines, consistent geometry, dependable sealing, and compliance with stringent hygiene standards are essential.



Developed by scientists at SIBUR PolyLab Moscow in collaboration with specialists from ZapSibNeftekhim, the new HDPE grade has successfully completed customer homologation in the beverage packaging segment and is ready for industrial-scale production. SIBUR noted that domestically produced HD21550 CC allows converters to use locally sourced raw materials on existing manufacturing equipment, reducing dependence on imported alternatives and lowering logistics costs. The company believes the material will provide beverage packaging manufacturers with greater supply-chain resilience while expanding options for high-performance closure materials. The launch further strengthens SIBUR's portfolio of polymers for food and beverage packaging and reflects the industry's growing focus on advanced materials that support lightweight packaging, manufacturing efficiency, product safety, and sustainability in beverage closures @June 27, 2026.



Kömmerling Launches Patented PVC Filament for Industrial and Consumer 3D Printing

PrintFlow PVC filament brings weather-resistant, recyclable, and high-performance PVC to FFF/FDM 3D printers, expanding material options for additive manufacturing.

Kömmerling has introduced PrintFlow, a patented PVC filament developed specifically for FFF/FDM 3D printers, marking a significant advancement in additive manufacturing materials. The new product expands the range of engineering-grade plastics available for 3D printing by offering the performance characteristics of PVC in a filament optimized for reliable and repeatable printing processes.

Unlike commonly used 3D printing materials such as PLA, ABS, and PETG, PVC has traditionally seen limited use in additive manufacturing due to processing challenges. Kömmerling's patented formulation addresses these limitations by enabling stable printing while preserving the material's inherent properties, including durability, moisture resistance, UV stability, weather resistance, and abrasion resistance.



With PrintFlow, Kömmerling is expanding the possibilities of PVC in additive manufacturing while providing designers, engineers, and manufacturers with a new material option for producing durable, high-quality components. The innovation highlights the evolving role of specialty polymers in advancing industrial 3D printing technologies and broadening the capabilities of FFF/FDM systems @June 26, 2026.

Giti Tire Showcases Sustainable Material Tyre Prototypes for Passenger and Commercial Vehicles

New PCR and TBR tyre prototypes incorporate renewable, recycled, and bio-based materials, advancing Giti Tire's sustainability and circular economy goals.

Giti Tire has unveiled new passenger car radial (PCR) and truck and bus radial (TBR) tyre prototypes that significantly increase the use of sustainable materials, marking another step in the company's commitment to environmentally responsible tyre manufacturing. The prototypes demonstrate how renewable, recycled, and bio-based raw materials can be integrated into tyre production without compromising performance. The newly developed tyres feature a higher proportion of sustainable materials than previous generations and are part of Giti Tire's long-term strategy to reduce dependence on fossil-based resources. The initiative supports the company's broader sustainability objectives while addressing increasing demand for greener products in the global automotive industry.



The tyre manufacturer continues to invest in research and development focused on sustainable mobility solutions. Its global R&D network is working to increase the percentage of renewable and recycled materials used in future tyre generations while enhancing fuel efficiency and reducing lifecycle emissions. Industry experts note that sustainable tyre materials are becoming an increasingly important area of innovation as automakers and tyre manufacturers work together to reduce the environmental impact of transportation. The use of recycled carbon black, renewable fillers, bio-based oils, and recycled metals is expected to become more widespread as the industry moves toward more circular manufacturing practices. With these latest PCR and TBR prototypes, Giti Tire reinforces its commitment to developing next-generation tyres that combine high performance with environmental responsibility, supporting the automotive industry's transition toward more sustainable mobility and resource-efficient manufacturing @June 26, 2026.



Volvo Trucks Expands Use of Recycled Plastics in Next-Generation Heavy-Duty Trucks

New truck models feature high recycled plastic content, reinforcing Volvo's commitment to circular manufacturing and sustainable material innovation.

Volvo Trucks has taken another step toward sustainable manufacturing by significantly increasing the use of recycled plastics in its next-generation heavy-duty trucks. The initiative highlights the growing role of recycled polymers in the automotive industry as manufacturers work to reduce carbon emissions, conserve natural resources, and support circular economy goals. The company's latest Volvo VNL and Volvo VNR truck models incorporate several components manufactured using post-industrial recycled plastics. One of the most notable examples is the front wheel splash shield, which is now produced using 75% recycled plastic. Volvo says this change helps reduce the environmental impact associated with producing virgin plastic while maintaining the strength and durability required for heavy-duty commercial vehicles.



Volvo Trucks continues to explore additional sustainable materials, including bio-based plastics, recycled consumer plastics, and other circular material solutions that could further reduce the environmental footprint of future commercial vehicles. With recycled plastics becoming an integral part of next-generation truck production, Volvo is reinforcing the automotive industry's transition toward more sustainable manufacturing practices while showcasing the potential of recycled polymers in high-performance industrial applications@June 26, 2026.

Nexen Tire Secures OE Tyre Supply Contracts with BYD for Global Electric Vehicle Models

Partnership strengthens Nexen Tire's position in the EV segment as BYD selects its advanced tyres for original equipment fitment on key electric vehicle platforms.

Nexen Tire has strengthened its presence in the rapidly growing electric vehicle (EV) market by securing original equipment (OE) tyre supply contracts with Chinese electric vehicle manufacturer BYD. The agreement highlights Nexen Tire's expanding role in the global automotive industry and reinforces its position as a supplier of advanced tyre solutions for next-generation mobility platforms.

Under the new contracts, Nexen Tire will provide tyres for several BYD electric vehicle models sold in international markets. The partnership reflects BYD's growing influence in the global EV sector and its focus on working with leading component suppliers to enhance vehicle performance, safety, and efficiency.



The agreement comes at a time when the global electric vehicle market continues to experience rapid growth. As one of the world's leading EV manufacturers, BYD has been expanding aggressively across Asia, Europe, Latin America, and other international markets. The company's increasing production volumes are creating new opportunities for suppliers across the automotive value chain. For Nexen Tire, the partnership aligns with its strategy of expanding in the EV segment and supporting automakers transitioning toward electrified mobility. The company continues to invest in research and development focused on tyres optimized for electric vehicles, autonomous driving technologies, and future mobility solutions. As demand for electric vehicles rises worldwide, collaborations between tyre manufacturers and EV producers are becoming increasingly important. The new OE supply contracts with BYD position Nexen Tire to benefit from this growth while contributing to advancements in vehicle efficiency, safety, and sustainable transportation. The agreement also reflects the broader transformation of the automotive industry, where innovation in components such as tyres plays a crucial role in enhancing the performance and sustainability of modern electric vehicles@ June 25, 2026.



Bolder Industries Secures Final Permits for European Waste Tire Pyrolysis Plant in Antwerp

Approval clears the way for construction of Bolder's first European recycling facility, converting end-of-life tires into recovered carbon black and pyrolysis oil.

Bolder Industries has achieved a significant milestone in its European expansion plans after securing the final permits required to develop its commercial-scale waste tire recycling facility at the Port of Antwerp-Bruges in Belgium. The approval removes the last major regulatory hurdle and allows the company to move forward with construction of its first industrial operation in Europe. The facility will be located in the NextGen District at the Port of Antwerp-Bruges, a hub focused on circular economy and sustainable industrial projects. The project has received support from the European Union's Innovation Fund and private investment partners, reflecting growing interest in technologies that convert waste materials into valuable industrial resources.

Bolder Industries

The Antwerp project is expected to contribute to these efforts by diverting end-of-life tires from disposal routes and transforming them into valuable industrial feedstocks. Construction of the facility is scheduled to begin in 2026, with commercial operations expected to commence in 2027. Once operational, the plant will help strengthen Europe's circular economy ambitions while supporting the transition toward more sustainable manufacturing and material recovery practices @June 25, 2026.

ASTM Approves New Biodegradability Standard to Advance Sustainable Plastics Development

The new ASTM standard provides a scientific framework for evaluating plastic biodegradation, helping manufacturers improve transparency, sustainability, and environmental performance.

ASTM International's Committee on Plastics has approved a new biodegradability testing standard designed to improve the evaluation of how plastic materials break down in specific environmental conditions. The development represents an important step toward establishing clearer and more consistent methods for assessing the environmental performance of plastic products and packaging. The newly approved standard is intended to provide manufacturers, researchers, regulators, and product developers with a science-based framework for measuring biodegradation rates and performance. By creating standardized testing procedures, ASTM aims to support greater transparency in environmental claims while helping organizations develop materials that align with sustainability goals.



Industry stakeholders believe the standard could also help reduce confusion surrounding biodegradability claims by providing a recognized benchmark for testing and verification. As demand for environmentally responsible materials continues to grow, scientifically validated standards are becoming increasingly important in helping businesses demonstrate compliance with sustainability objectives and regulatory requirements. The approval reflects ASTM International's ongoing efforts to develop technical standards that address emerging environmental challenges and support innovation in materials science. The organization's plastics committee continues to work on standards related to biodegradability, compostability, recycling, and the broader management of plastic materials throughout their lifecycle. As companies invest in next-generation materials and sustainable packaging solutions, the new plastic biodegradability standard is expected to play a significant role in guiding product development, validating environmental performance, and strengthening confidence in biodegradability claims across global markets @June 25, 2026.



Apollo Tyres Emerges Fastest-Rising Brand in Global Tyre Brand Strength Rankings for 2026

Brand Finance ranks Apollo Tyres among the world's strongest tyre brands as sponsorships, innovation, and customer engagement drive significant brand growth.

Apollo Tyres has achieved a major milestone in global brand recognition, emerging as the fastest climber in the 2026 Brand Strength Index rankings for tyre manufacturers. According to an independent analysis conducted by Brand Finance, the company recorded one of the most significant improvements in brand strength among the world's leading tyre brands, reflecting the success of its strategic marketing, innovation, and customer engagement initiatives. The latest rankings place Apollo Tyres in sixth position globally, a substantial jump from thirteenth place in the previous year.



The recognition comes at a time when the tyre industry is experiencing rapid transformation driven by evolving mobility trends, sustainability requirements, and increasing demand for advanced tyre technologies. By combining innovation with strong brand-building initiatives, Apollo Tyres is positioning itself for continued growth in both mature and emerging markets. With its significant rise in the Brand Strength Index, Apollo Tyres has reinforced its status as one of the most recognized and trusted tyre brands globally, highlighting the effectiveness of its long-term strategy focused on innovation, customer value, and brand excellence @ June 24, 2026.

Dow Expands Specialty Silicones Portfolio with Strategic Investments to Drive Innovation and Sustainability

New investments strengthen Dow's silicone capabilities, supporting growth in high-performance materials, advanced manufacturing, and sustainable industrial applications.

Dow has announced a series of strategic investments aimed at strengthening its specialty silicones portfolio, reinforcing the company's commitment to innovation, sustainability, and long-term growth in high-performance materials. The move is designed to enhance Dow's ability to meet increasing global demand for advanced silicone solutions across a wide range of industries, including automotive, construction, electronics, healthcare, consumer goods, and industrial manufacturing. The investments will expand Dow's capabilities in silicone technologies, enabling the company to deliver enhanced performance, improved processing efficiency, and more sustainable material solutions for customers worldwide.



Industry analysts note that specialty silicones represent a high-value segment within the global specialty chemicals market, driven by increasing demand for advanced materials across multiple end-use industries. Dow's investment initiative reflects growing confidence in the long-term potential of silicone-based technologies and their role in enabling industrial innovation. The expansion also complements Dow's broader efforts to strengthen its specialty materials business and enhance customer access to advanced silicone solutions through strategic partnerships and distribution networks. Recent collaborations have further extended the availability of Dow's silicone additives for plastics and composites across key international markets. With these investments, Dow is positioning itself to capture future growth opportunities in specialty chemicals while supporting customers with innovative, sustainable, and high-performance silicone solutions for a rapidly evolving industrial landscape @ June 24, 2026.



Nestlé Advances Circular Packaging Strategy to Reduce Waste and Boost Recycling Worldwide

Food giant accelerates efforts in recyclable packaging, recycled content adoption, and waste management infrastructure to support a circular economy.

Nestlé is intensifying its efforts to reduce packaging waste and strengthen recycling systems as part of its long-term commitment to building a circular economy. The company has outlined a comprehensive packaging strategy focused on reducing virgin plastic use, improving recyclability, increasing the use of recycled materials, and supporting waste management infrastructure worldwide. Packaging remains a critical component of food safety, quality preservation, and the reduction of food waste.



Industry experts note that while significant progress has been made in packaging sustainability, challenges remain due to varying recycling infrastructure capabilities across different countries. Nestlé has emphasized that improved policy frameworks, harmonized regulations, and greater investment in recycling systems will be essential to accelerating the transition toward a fully circular packaging economy.

As consumer demand for environmentally responsible products continues to grow, Nestlé's packaging initiatives reflect a broader industry shift toward sustainable packaging solutions. Through innovation, infrastructure support, and material redesign, the company aims to reduce packaging waste and contribute to a more resource-efficient future for the global food industry @June 24, 2026.

India Levies Anti-Dumping Duty on Rubber Products Imported from China, EU, and US

India Imposes Anti-Dumping Duty on Sulphenamides Accelerators Imports from China, EU, and US

India has imposed a five-year anti-dumping duty on imports of Sulphenamides Accelerators, a vital chemical used in the rubber and tire manufacturing industries, from China, the European Union, and the United States. The move follows an investigation by the Directorate General of Trade Remedies (DGTR), which found that the product was being imported into India at unfairly low prices, adversely affecting domestic manufacturers. The Ministry of Finance announced the measure through an official notification, stating that the anti-dumping duty will range between \$75 and \$1,748 per metric ton, depending on the exporter and country of origin. The duty will remain in force for five years unless reviewed or withdrawn earlier.



Additionally, the government has imposed a five-year anti-dumping duty of \$200.66 per metric ton on imports of Polyethylene Terephthalate (PET) resin from China. PET resin, commonly used in beverage bottles, food packaging, and industrial applications, has been subject to pricing pressures from imported products, prompting protective measures for domestic producers. Anti-dumping duties are recognized trade remedy measures under World Trade Organization (WTO) rules. Countries are permitted to impose such duties when investigations establish that imported goods are being sold below their fair market value and are causing injury to local industries. The objective is to restore fair competition rather than restrict trade. Industry observers believe these measures reflect India's continued commitment to strengthening domestic manufacturing and enhancing industrial competitiveness. By addressing unfair pricing practices, the government aims to support local producers, encourage investments, and build greater resilience across key manufacturing sectors @June 23, 2026.



PVC Pipe Industry Set for Better Earnings Despite Volume Dip: CRISIL

Improved Margins Expected to Support Profitability Across the Sector

India's PVC pipe industry is expected to witness stronger earnings despite a temporary slowdown in volume growth, according to a recent CRISIL analysis. The sector is benefiting from improved pricing conditions, stable raw material costs, and increased government spending on water supply, sanitation, irrigation, and housing infrastructure projects. PVC pipe manufacturers experienced challenges over the past year due to volatile PVC resin prices, dealer inventory corrections, and cautious purchasing by distributors. However, the industry is now entering a more stable phase as PVC resin prices have become relatively range-bound and dealer restocking activity has resumed. This is expected to improve realizations and operating margins for organized manufacturers.



CRISIL expects the industry's profitability to improve as higher production utilization, reduced inventory pressures, and better operating leverage offset the impact of slower volume growth. Organized players are also expected to continue gaining market share from smaller unorganized manufacturers, further strengthening earnings prospects. Industry leaders such as Supreme Industries, Astral, and Prince Pipes and Fittings are expected to benefit from improving market conditions, stronger distribution networks, and ongoing investments in capacity expansion and value-added product offerings. While fluctuations in global PVC resin prices and regulatory developments remain key factors to monitor, the overall outlook for India's PVC pipe industry remains positive. Enhanced margins, infrastructure spending, and continued demand from agriculture and construction sectors are expected to support earnings growth in the coming quarters @June 22, 2026.

PPF Initiative Launched to Accelerate UK Flexible Plastic Packaging Recycling

Industry-led Flexible Plastic Fund aims to strengthen collection, sorting, and recycling infrastructure ahead of nationwide flexible plastic recycling reforms in the UK.

The Flexible Plastic Fund (PPF) has launched a new initiative aimed at advancing the recycling of flexible plastic packaging across the United Kingdom, marking another significant step toward building a circular economy for one of the packaging industry's most challenging waste streams. The initiative seeks to improve the collection, sorting, and reprocessing of flexible plastics while supporting the UK's broader sustainability and recycling targets. Flexible plastic packaging, widely used for food products, pouches, wrappers, and films, has traditionally been difficult to recycle due to its lightweight structure and complex material composition.



Building on the success of the FlexCollect project, the UK's largest flexible plastic collection and recycling pilot, the initiative aims to generate valuable data and operational insights that can support the rollout of household flexible plastic collections expected under the UK's Simpler Recycling reforms. The project has already demonstrated how coordinated action across the value chain can improve recovery rates and strengthen domestic recycling capabilities. The move comes at a crucial time as the UK packaging sector adapts to evolving regulations, including Extended Producer Responsibility (EPR), Simpler Recycling requirements, and broader circular economy objectives. Industry experts believe that expanding recycling infrastructure and creating stable end markets for recycled flexible plastics will be essential for achieving long-term sustainability goals. The initiative also aligns with growing investment in plastic recycling infrastructure across the UK. Recent investments by major recycling companies and industry partnerships highlight increasing momentum toward developing domestic recycling capacity and reducing reliance on virgin plastic materials. By fostering collaboration across the packaging value chain, the Flexible Plastic Fund hopes to accelerate the transition toward a fully circular system where flexible plastic packaging is collected, recycled, and reused on a much larger scale, helping reduce waste and support the UK's environmental commitments @June 22, 2026.



Mathe Group Advances Sustainable Gym Flooring with Recycled Tyre Innovation

South African tyre recycler transforms end-of-life tyres into eco-friendly gym flooring, promoting circular economy practices and reducing environmental impact.

South Africa-based Mathe Group is setting new benchmarks in sustainable sports and fitness infrastructure by converting discarded tyres into high-performance gym flooring solutions. The company's innovative recycling model demonstrates how waste materials can be transformed into durable, environmentally responsible products while supporting the circular economy. As one of Africa's leading tyre recyclers, Mathe Group processes more than 200,000 post-consumer tyres annually, recovering valuable rubber and steel that would otherwise end up in landfills. Through advanced recycling technologies, the recovered rubber is transformed into rubber crumb and granules that serve as raw materials for a wide range of applications, including gym flooring, playground surfaces, sports facilities, acoustic underlays, and industrial products.



The recycled rubber used in gym flooring offers significant performance advantages. Its shock-absorbing properties help reduce impact on joints, enhance user comfort, and improve safety in fitness environments. Additionally, the material provides excellent resistance to wear and abrasion, extending the lifespan of flooring installations while reducing maintenance requirements. Sustainability remains central to the company's operations. Mathe Group emphasizes 100% recycling of tyre materials and has invested in renewable energy solutions, including solar power generation, to reduce its environmental footprint. The company also promotes the replacement of virgin rubber with recycled alternatives, helping conserve natural resources and lower carbon emissions associated with manufacturing @June 22, 2026

Plastic Waste Finds New Life in Homes Built in Just Five Days

Innovative building technology transforms plastic waste into durable construction materials, offering a sustainable alternative to conventional housing

A groundbreaking construction technology is demonstrating how plastic waste can be transformed into a valuable building resource, with homes being assembled in as little as five days using recycled plastic bricks instead of traditional clay bricks and cement-based blocks. The innovative system, developed by Colombian company Conceptos Plásticos, converts post-consumer and industrial plastic waste into modular construction components that interlock like building blocks. The technology provides a practical solution to two global challenges: mounting plastic waste and the growing demand for affordable housing.



The technology highlights a growing trend in the plastics sector, where end-of-life plastic materials are increasingly being repurposed for high-value applications. By transforming waste plastic into durable construction products, manufacturers can reduce the volume of plastic entering landfills while extending the lifecycle of recycled materials. According to the developers, thousands of tonnes of plastic waste have already been converted into homes, classrooms, and community buildings through the system. Industry experts believe such innovations could open new opportunities for the circular economy by creating large-scale markets for recycled plastics.

Construction applications can consume significant volumes of recycled material, helping improve recycling economics while reducing dependence on conventional resource-intensive building materials. As governments and industries seek sustainable alternatives for waste management and infrastructure development, recycled plastic construction systems are emerging as a promising example of how plastic waste can be converted into practical, long-lasting products that deliver both environmental and social benefits @June 20, 2026



Anti-Dumping Investigation Begins on Key Tyre and Rubber Chemical Imports

DGTR investigates alleged low-priced imports of key tyre and rubber chemical amid concerns over impact on domestic manufacturers

India has initiated an anti-dumping investigation into imports of Resorcinol, a critical chemical used in the production of tyres, rubber products, adhesives, and industrial applications, following allegations that exporters from China and Japan are selling the product in the Indian market at unfairly low prices. The investigation has been launched by the Directorate General of Trade Remedies (DGTR), the country's trade watchdog under the Ministry of Commerce and Industry. The probe follows a petition filed by Indian chemical manufacturer Atul Ltd, which claims that dumped imports of Resorcinol from the two countries have caused material injury to the domestic industry. According to the company, low-priced imports have adversely affected local producers by putting pressure on prices, profitability, and market share. After reviewing the evidence submitted, the DGTR concluded that there was sufficient prima facie evidence to warrant a formal investigation.



The move reflects India's continued efforts to strengthen domestic manufacturing and safeguard local industries from import distortions. It also highlights the increasing scrutiny being placed on chemical and raw material imports that serve strategically important sectors such as automotive, tyre manufacturing, and industrial production. As the investigation progresses, industry stakeholders will closely monitor its findings and the potential impact on supply chains, production costs, and market dynamics within India's rubber and tyre sector @June 20, 2026.

Scientists Develop Thermal Barcode Technology to Revolutionize Plastic Waste Sorting and Recycling

New infrared-based identification system could significantly improve recycling efficiency and support a circular plastics economy

Researchers have unveiled an innovative thermal barcode technology capable of rapidly identifying different types of plastic waste, a breakthrough that could help address one of the biggest challenges in global recycling systems—accurate and efficient plastic sorting. Developed by a team at the University at Buffalo, the new technique uses mid-infrared light and thermal imaging to create unique thermal signatures for various plastic materials. The method, known as a Transient Thermal Barcode (TTB) system, allows plastics to be identified without physical contact, paving the way for faster and more automated recycling operations.



The development is particularly significant as governments and industries worldwide increase efforts to improve recycling rates and reduce plastic pollution. Better sorting technologies can enhance the quality of recycled materials, reduce contamination, and make recycling processes more economically viable. Recent studies have highlighted that accurate separation of plastics remains one of the most critical factors influencing the success of recycling programs and the quality of recovered materials. Researchers believe the Transient Thermal Barcode system could eventually be integrated with artificial intelligence, robotics, and automated conveyor-based sorting systems, enabling high-speed identification of plastics in real-world recycling facilities. Such advancements could help recyclers recover higher-value materials while reducing the amount of plastic waste sent to landfills or the environment. As the global plastics industry continues to seek more sustainable waste management solutions, the new thermal barcode approach represents a promising step toward smarter recycling infrastructure and a more circular economy where valuable materials remain in use for longer periods rather than becoming environmental pollutants @June 20, 2026



Import Duty Waiver Extension Under Review as India Seeks to Boost Industrial Growth

Government reviews continuation of customs duty relief to ease input costs and strengthen manufacturing competitiveness

The Indian government is considering extending the import duty waiver on around 40 critical products beyond its current expiry date as part of ongoing efforts to support domestic manufacturing and reduce production costs for key industries. The move is aimed at ensuring a stable supply of essential raw materials and intermediate goods that are not available in sufficient quantities within the country. The customs duty concessions were introduced to help industries manage rising input costs and improve competitiveness in both domestic and international markets.



Manufacturers have argued that maintaining lower import duties on critical inputs can help keep production costs under control, encourage investment, and support export-oriented industries. The measure is also expected to provide greater certainty for businesses planning procurement and production activities in the coming months. The proposed extension reflects the government's broader strategy of balancing support for domestic manufacturing with the need to ensure access to essential raw materials. A final decision on the continuation of the import duty waiver is expected in the near future, with industry participants closely monitoring the outcome due to its potential impact on operational costs and market competitiveness @June 19, 2026.

Sri Lanka's Rubber Industry Prepares for EU Deforestation Rules Through EU-Funded Capacity Building Initiative

Industry stakeholders strengthen traceability and sustainability measures to maintain access to European markets

Sri Lanka's rubber industry is stepping up efforts to comply with the European Union Deforestation Regulation (EUDR) through a comprehensive EU-funded capacity-building programme aimed at enhancing sustainability, traceability, and regulatory readiness across the sector. The initiative is designed to help rubber growers, processors, exporters, and manufacturers meet the stringent requirements that will govern access to the European market. The EUDR requires companies exporting rubber and rubber-based products to the European Union to demonstrate that their products are free from deforestation and forest degradation.



Industry representatives have emphasized that compliance with the EUDR is essential for safeguarding Sri Lanka's position in the European market, which remains a significant destination for the country's rubber and rubber-based exports. The sector is also exploring digital mapping and verification systems to strengthen supply-chain transparency and support future compliance requirements. The initiative reflects a broader commitment to sustainable production and responsible sourcing practices. By strengthening environmental compliance and improving traceability across the supply chain, Sri Lanka's rubber industry aims to enhance its competitiveness while aligning with global sustainability expectations.

The programme is expected to help businesses navigate regulatory changes, reduce market risks, and reinforce the industry's long-term export potential. With international buyers increasingly prioritizing sustainable sourcing, industry leaders view the capacity-building drive as an important step toward ensuring that Sri Lankan rubber products continue to meet global market requirements while supporting environmentally responsible growth across the sector @June 19, 2026.



Axjo Opens New Texas Manufacturing Plant to Expand Sustainable Cable Reel Production in North America

The new 160,600-square-foot facility in Haltom City will increase production capacity, improve supply chain efficiency, and support growing demand for recyclable cable reel solutions across the U.S.

Axjo Group, a Sweden-based manufacturer of recycled polymer packaging solutions, has strengthened its presence in North America with the launch of a new 160,600-square-foot production facility in Haltom City, Texas. The new plant is designed to expand the company's manufacturing capabilities for plastic cable reels and spools while improving service and delivery to customers across the United States.



The Texas facility marks a significant milestone in Axjo's long-term growth strategy in the American market. Production operations have commenced at the site, which will complement the company's existing manufacturing operations in North Carolina and increase its ability to supply larger cable reels for industries including energy, telecommunications, infrastructure, and industrial manufacturing. According to the company, growing demand for sustainable and durable cable packaging solutions has driven the investment. The new facility enables Axjo to manufacture larger reel formats while bringing production closer to customers in the southern and western regions of the United States, reducing lead times and enhancing supply chain efficiency. Axjo has built its reputation on developing cable reels and packaging products made from recycled materials, supporting circular economy principles and reducing dependence on traditional materials such as wood and plywood. The company believes the Texas expansion will help accelerate the adoption of recyclable and reusable packaging solutions across North America.

The company first established its U.S. operations in North Carolina in 2010 and has steadily expanded its presence in the region. The Texas investment represents the next phase of Axjo's international growth plans, reinforcing its commitment to sustainable manufacturing and customer-focused innovation.

With the new facility now operational, Axjo aims to strengthen its position in the global cable packaging market while continuing to develop environmentally responsible solutions that support both operational efficiency and sustainability goals for customers worldwide @June 19, 2026.

Tarmac Strengthens Circular Economy Strategy Through High-Recycled-Content Packaging

Construction Materials Leader Advances Circular Economy Goals Through Sustainable Packaging Innovation

Tarmac has taken another significant step in its sustainability journey by introducing packaging made with up to 80% recycled plastic content, reinforcing its commitment to reducing waste and promoting circular economy practices across the construction materials sector. The initiative builds on the company's earlier efforts to incorporate recycled materials into its cement packaging and reflects growing industry demand for environmentally responsible solutions.



As regulatory pressures and customer expectations continue to drive demand for sustainable construction products, initiatives such as high-recycled-content packaging are becoming increasingly important. By further increasing the proportion of recycled material in its packaging, Tarmac is demonstrating how manufacturers can reduce plastic waste while maintaining product performance and supply chain efficiency.

The development underscores the growing role of packaging innovation in achieving environmental objectives across the construction sector. As companies seek new ways to minimize resource consumption and support circularity, recycled-content packaging is expected to play an increasingly important role in helping manufacturers meet their sustainability targets while delivering practical benefits to customers @June 18, 2026.



Agricultural Waste Converted into Key Nylon Building Block in Sustainable Manufacturing Breakthrough

Innovative Bio-Based Method Could Reduce Nylon Industry's Dependence on Fossil Fuels

Scientists have developed a groundbreaking approach to convert agricultural waste into a crucial chemical used in nylon production, opening a new pathway toward more sustainable and environmentally friendly manufacturing. The breakthrough focuses on transforming lignin, a plant-based material commonly generated as a byproduct of agriculture and forestry, into adipic acid, one of the primary building blocks required to manufacture nylon.



Nylon is widely used across numerous industries, including automotive, textiles, packaging, consumer goods, and engineering applications. As global demand for sustainable materials continues to rise, the ability to produce nylon ingredients from renewable biomass could support the transition toward a more circular and resource-efficient economy. The development also aligns with broader efforts to reduce dependence on fossil-based chemicals while improving the utilization of agricultural byproducts. Researchers believe further optimization and scaling efforts could enhance production efficiency and commercial viability. If successfully industrialized, the technology may provide manufacturers with a sustainable source of adipic acid while offering farmers and biomass processors new opportunities to generate value from agricultural residues. The advancement represents another important step in the growing movement to transform waste streams into high-performance materials and essential industrial chemicals @June 18, 2026.

Nepali Farmers Turn to Rubber Cultivation to Combat Wildlife Crop Damage

Rubber farming is emerging as a sustainable alternative for farmers in eastern Nepal, helping reduce losses caused by elephants and monkeys while creating new income opportunities.

Farmers in eastern Nepal are increasingly turning to rubber cultivation as a practical solution to the growing challenge of crop destruction caused by wild elephants and monkeys. In districts such as Jhapa, where human-wildlife conflict has intensified in recent years, many growers are replacing traditional crops like paddy and maize with rubber plantations that are far less attractive to wildlife.

For years, farmers living near forested areas faced repeated losses as elephants trampled fields and monkeys raided crops before harvest. The constant threat not only reduced agricultural productivity but also discouraged many families from continuing conventional farming. Faced with mounting financial losses, farmers began exploring alternative crops that could withstand wildlife pressure while still generating reliable returns.



The expansion of rubber cultivation reflects a broader trend among Nepali farmers adapting to increasing human-wildlife conflict. In other regions affected by monkey invasions, farmers have experimented with crops such as ginger and Akabare chilli, which are less likely to be damaged by animals. These shifts highlight the growing importance of climate-resilient and wildlife-resistant agricultural practices in sustaining rural livelihoods. Agricultural groups and farmer associations believe rubber cultivation has considerable potential for further growth, particularly in wildlife-prone regions. They argue that with greater technical assistance, irrigation support and policy backing, Nepal could expand domestic rubber production while helping farmers protect their livelihoods from recurring wildlife losses. As Nepal continues to grapple with balancing conservation efforts and agricultural development, the success of rubber farming demonstrates how innovative crop choices can help reduce conflict between people and wildlife while creating new economic opportunities for rural communities @June 18, 2026.



American Polymer Company Opens Third Manufacturing Facility to Expand Production Capacity and Customer Service

New facility strengthens manufacturing capabilities, supports product expansion, and enhances service responsiveness as demand for polymer solutions continues to grow.

American Polymer Company has announced the opening of its third manufacturing facility, marking a significant milestone in the company's growth strategy and reinforcing its commitment to expanding production capacity, improving customer service, and broadening its product portfolio. The new facility is expected to strengthen the company's operational capabilities while supporting increasing demand across a wide range of industrial and commercial markets.



In addition to increasing manufacturing capacity, the facility is expected to enhance operational efficiency through modern production technologies and optimized workflows. These improvements will enable the company to maintain high quality standards while supporting larger production volumes and faster delivery schedules. The expansion also underscores a broader trend within the polymer and specialty materials sector, where companies are investing in new facilities and production assets to meet rising demand and support long-term business growth. Industry leaders continue to prioritize capacity expansion, product diversification, and customer-focused innovation as key drivers of competitiveness in an evolving marketplace. With the new facility now operational, American Polymer Company is well positioned to strengthen its market presence, improve service levels, and pursue new opportunities across its target industries. The company expects the expanded manufacturing network to support sustained growth while delivering greater value to customers through enhanced production capabilities and a broader portfolio of polymer solutions @June 17, 2026.

Apollo Tyres Launches Inspiring Campaign Celebrating India Women Cricketers' Journey to Success

Featuring Harmanpreet Kaur, Smriti Mandhana, Jemimah Rodrigues, Shafali Verma and Renuka Singh, the campaign highlights resilience, sacrifice and determination behind the Women in Blue's rise to international cricket.

Apollo Tyres has launched a new chapter of its flagship 'Har Safar Mein Dum Hai' campaign, shining a spotlight on the remarkable journeys of India's leading women cricketers. The initiative celebrates the determination, resilience and sacrifices that shaped the careers of some of the country's most accomplished athletes long before they earned international recognition. The campaign features prominent members of the Indian women's cricket team, including Harmanpreet Kaur, Smriti Mandhana, Jemimah Rodrigues, Shafali Verma and Renuka Singh. Rather than focusing on achievements and records, the film explores the personal challenges and defining moments that helped each player reach the highest level of the sport.



Designed as a digital-first initiative, the campaign will be promoted across YouTube, Meta platforms and various social media channels, supported by influencer collaborations and digital out-of-home activations. The company expects the campaign to resonate strongly with cricket fans while inspiring young athletes, particularly girls aspiring to pursue careers in sports. By focusing on the untold stories behind India's women cricketers, Apollo Tyres has created a campaign that goes beyond sport and celebrates the values of persistence, hard work and self-belief. As women's cricket continues to gain momentum, the initiative reinforces the growing recognition and influence of female athletes in India's sporting ecosystem @June 17, 2026.



SunSirs Report Highlights Key Trends Shaping Global Plastics and Rubber Markets in June 2026

Production adjustments, synthetic rubber output plans, polyethylene market movements, and global trade developments continue to influence the plastics and rubber industries.

The global plastics and rubber industries continue to navigate a complex market environment shaped by production adjustments, trade policies, and evolving demand patterns. According to the latest commodity intelligence released by SunSirs, market participants are closely monitoring developments across polyethylene (PE), synthetic rubber, and related petrochemical segments as manufacturers adapt to changing economic conditions and operational requirements. In the plastics sector, polyethylene markets remain influenced by maintenance schedules and production shifts at major manufacturing facilities. Several producers have adjusted operating rates or undertaken planned shutdowns, affecting regional supply availability and pricing trends.



Macroeconomic developments remain another critical factor shaping industry sentiment. Market participants are monitoring monetary policy decisions, manufacturing activity indicators, and global trade policies, all of which can affect industrial demand and investment activity. Commodity analysts suggest that future market performance will depend on the balance between economic growth prospects, raw material availability, and downstream consumption trends. Looking ahead, the plastics and rubber sectors are expected to remain focused on operational efficiency, supply-chain resilience, and sustainability initiatives. As manufacturers continue to adapt to evolving market conditions, industry stakeholders will be closely tracking production levels, pricing movements, and international trade developments to assess growth opportunities and potential risks in the months ahead @June 17, 2026.

Zeon Accelerates Exit from ESBR and NBR Latex to Focus on High-Margin Materials

The Japanese materials company is phasing out lower-profit synthetic rubber products while expanding investments in specialty polymers, advanced materials, and growth-oriented technologies.

Zeon Corporation is moving ahead with a major restructuring of its elastomers portfolio, accelerating its withdrawal from selected synthetic rubber and latex product lines as part of a broader strategy to improve profitability and strengthen its position in high-value markets. The Japanese chemicals and materials manufacturer is discontinuing production of emulsion styrene-butadiene rubber (ESBR-1) and nitrile butadiene rubber (NBR) latex while redirecting resources toward specialty materials and advanced polymer technologies. The transition forms part of Zeon's medium-term growth strategy, which aims to enhance earnings through portfolio optimization and greater focus on products with stronger margins and long-term growth potential.



Industry analysts view the move as part of a wider trend among global chemical and materials companies seeking to improve profitability through portfolio rationalization. By reducing exposure to lower-margin commodity products and expanding specialty materials operations, manufacturers are increasingly positioning themselves to benefit from evolving market requirements and technological innovation.

Zeon expects the restructuring initiative to strengthen its earnings profile over the coming years while supporting sustainable growth. The company has set ambitious financial targets for the end of the decade and believes its focus on specialty elastomers, advanced polymers, and next-generation materials will create a more resilient and competitive business model @June 16, 2026.



Michelin India Accelerates Regional Growth with New Tyre Service Hub in Bikaner

Expansion into emerging markets reflects growing demand for premium mobility solutions beyond major cities

Expansion into emerging markets reflects growing demand for premium mobility solutions beyond major cities. Michelin India has expanded its retail footprint in Rajasthan with the inauguration of a new Michelin Tyres & Services (MTS) outlet in Bikaner. The move forms part of the company's strategy to enhance access to premium tyre products and professional automotive services in fast-growing non-metro markets across the country. Developed in partnership with Bhagwati Tyres, the new facility is strategically located on Jaipur Road near Khatu Shyam Temple. The outlet has been designed to serve both passenger vehicle and two-wheeler customers, offering Michelin's premium tyre portfolio alongside services such as wheel alignment, wheel balancing, and nitrogen inflation.



Bhagwati Tyres, Michelin's local partner for the project, brings nearly two decades of experience in tyre retailing across Rajasthan. Through the collaboration, both companies aim to elevate the customer experience by offering advanced tyre technologies, reliable service support, and professional vehicle care under one roof. Bikaner's growing economy, improving infrastructure, and increasing adoption of premium vehicles have made it an attractive market for organised automotive retail. Industry observers note that demand for high-quality tyres and professional after-sales services is rising steadily as mobility needs evolve across smaller cities and regional hubs.

The latest launch marks another step in Michelin India's ongoing efforts to expand its national retail network and strengthen customer engagement beyond metropolitan areas. By investing in strategically located service centres, the company aims to support changing mobility trends while delivering premium tyre solutions tailored to Indian road conditions and consumer expectations @June 16, 2026.

New Graphene-Based Masterbatch Enables Stronger, Lighter Plastic Films

New GrapheneBlack xGnP technology delivers stronger films, supports recycled content use, and advances sustainable packaging solutions

NanoXplore and Techmer PM have announced the commercial launch of GrapheneBlack xGnP™, a graphene-enhanced masterbatch designed to improve the performance of high-performance plastic film applications. The new solution combines advanced graphene technology with polymer engineering expertise to help manufacturers produce stronger, lighter, and more sustainable plastic films. The newly developed masterbatch has demonstrated significant improvements in mechanical performance, enabling film producers to enhance strength while potentially reducing material usage. According to the companies, the technology can increase film durability and may allow manufacturers to reduce film thickness without compromising key properties such as tensile strength, tear resistance, and puncture performance. This capability offers potential cost savings while supporting material efficiency initiatives.



The launch reflects growing interest in graphene as a performance-enhancing additive for plastics and packaging applications. Industry experts view graphene as a promising material for improving strength, lightweighting, barrier properties, and sustainability performance across a wide range of polymer products. With increasing demand for recyclable and resource-efficient packaging solutions, the new GrapheneBlack xGnP™ masterbatch could play an important role in helping manufacturers meet both performance and environmental objectives @June 16, 2026.



Pirelli Launches New Cinturato Gravel RH and RM Tyres for High-Performance Gravel Cycling

Italian tyre maker introduces high-performance gravel racing tyres designed for speed, control, and durability across diverse terrain

Pirelli has expanded its gravel cycling range with the launch of the new Cinturato Gravel RH and Cinturato Gravel RM tyres, reinforcing its commitment to the rapidly evolving gravel cycling segment. Developed to meet the growing demands of competitive and performance-oriented riders, the new tyres are engineered to deliver enhanced speed, grip, and reliability across a wide variety of riding conditions. Manufactured entirely at Pirelli's Milan-Bollate facility in Italy, both models are produced using FSC-certified natural rubber, reflecting the company's focus on combining high-performance technology with sustainable manufacturing practices.



The launch comes as gravel cycling continues to gain momentum globally, driving demand for specialized equipment capable of handling a broader range of riding conditions. By expanding the Cinturato family, Pirelli aims to provide riders with more tailored options that address specific terrain requirements while maintaining the performance standards expected by competitive cyclists and long-distance adventure riders alike.

With the introduction of the Cinturato Gravel RH and RM, Pirelli further strengthens its premium cycling portfolio and demonstrates its ongoing investment in product innovation, sustainability, and high-performance tyre technology for the growing gravel cycling community @June 15, 2026.

Rubber Recycling Initiative Sparks Innovation and Circular Economy Growth in Trinidad and Tobago

CARIRI's rubber crumb distribution program encourages businesses to transform waste tyres into commercially viable and environmentally responsible products

A new rubber recycling initiative in Trinidad and Tobago is creating opportunities for innovation, entrepreneurship, and sustainable manufacturing by turning discarded tyres into valuable raw materials. Led by the Caribbean Industrial Research Institute (CARIRI), the program is helping local businesses explore new applications for recycled rubber while supporting the country's transition toward a circular economy. As part of the initiative, CARIRI distributed rubber crumb material to selected companies and organizations, enabling them to test, evaluate, and incorporate the recycled material into existing and future products. The goal is to stimulate the development of innovative, market-ready solutions that reduce waste while generating economic value.



The recycled rubber crumb is expected to find applications across multiple sectors, including construction, infrastructure, safety equipment, and industrial manufacturing. Potential products include paving materials, floor tiles, protective mats, and other engineered solutions that benefit from the durability and flexibility of recycled rubber. CARIRI has also committed to providing technical assistance to participating organizations as they move from testing and prototyping toward commercial-scale production. The initiative reflects a broader effort to strengthen sustainable manufacturing and circular economy practices in Trinidad and Tobago. By encouraging businesses to develop value-added products from recycled materials, the program demonstrates how environmental stewardship and economic development can work together to create long-term benefits for industry and society @June 15, 2026.



N Hari Appointed Rubber Board Chairman for Three-Year Term, Strengthening India's Rubber Sector

Kerala BJP leader takes charge of the country's apex rubber sector body as government focuses on strengthening the industry

The Central Government has appointed BJP leader N Hari as the new Chairman of the Rubber Board, a key statutory body responsible for the development and promotion of India's rubber sector. The appointment, made by the Department of Commerce under the Ministry of Commerce and Industry, will be for a period of three years. N Hari, who currently serves as the BJP's Central Zone President in Kerala, brings experience in both politics and the rubber industry to the position. A native of Pallikkathode in Kottayam district, he has been associated with the Rubber Board for the past two years as a board member and has been actively involved in issues concerning rubber growers and the industry.



Hari is a former president of the BJP's Kottayam district unit and has contested Assembly elections on behalf of the party. His appointment is expected to strengthen the Board's engagement with rubber-growing communities, particularly in Kerala, which accounts for a significant share of India's natural rubber production. The leadership change comes at a time when the Indian rubber industry is focusing on improving productivity, expanding cultivation in non-traditional regions, and addressing challenges related to imports, price fluctuations, and farmer welfare. Industry stakeholders will be looking to the new chairman to support policies that enhance domestic production and improve the livelihoods of rubber growers. With a three-year tenure ahead, N Hari is expected to guide the Rubber Board's initiatives aimed at promoting innovation, sustainability, and long-term growth in India's rubber ecosystem while strengthening support for the country's millions of rubber farmers @June 15, 2026.

NDMC Expands Waste Management Push Through Plastic Recycling Drive

New initiative encourages citizens, businesses, and community groups to participate in plastic waste collection and recycling as part of broader efforts to reduce pollution and strengthen sustainability practices.

The New Delhi Municipal Council (NDMC) has launched a new plastic recycling initiative aimed at improving waste segregation, increasing recycling rates, and promoting responsible disposal of plastic waste across the national capital's civic zones. The campaign forms part of NDMC's ongoing efforts to strengthen environmental sustainability and encourage greater public participation in waste management. Through the initiative, residents, market associations, institutions, and commercial establishments are being encouraged to segregate plastic waste at source and channel it into organized recycling systems.



As part of the programme, NDMC is working to improve collection mechanisms and engage citizens through awareness activities that highlight the environmental benefits of recycling. The initiative also aligns with national efforts to reduce plastic waste and promote sustainable consumption practices. The civic body has increasingly focused on modern waste management solutions in recent years, including sanitation campaigns, mechanized cleaning systems, recycling initiatives, and community-driven environmental programmes. These efforts are intended to create cleaner public spaces while encouraging long-term behavioral changes among residents and businesses. Officials believe that stronger participation from citizens and local stakeholders will be critical to the success of the recycling drive. By improving plastic recovery and recycling rates, the initiative aims to reduce environmental pollution, conserve resources, and contribute to a cleaner and more sustainable urban environment @June 13, 2026.



Yijin Solution Enhances CNC Machining Capabilities for High-Performance Rubber Parts

Upgraded tooling, optimized machining techniques, and advanced quality controls improve the production of precision-engineered rubber components for industrial applications.

Yijin Solution has announced significant advancements in its rubber CNC machining operations, expanding its ability to manufacture high-precision rubber components for a wide range of industrial sectors. The latest developments are aimed at improving dimensional accuracy, surface quality, and production consistency for critical rubber-based parts used in automotive, aerospace, medical, and energy applications. The company's upgraded manufacturing approach incorporates specialized tooling systems, optimized machining parameters, and enhanced quality assurance procedures. These improvements are designed to address the unique challenges associated with machining rubber materials, which often exhibit varying levels of elasticity, hardness, and thermal sensitivity during production.



The company believes that offering multi-material manufacturing solutions within a single production environment can help customers streamline supply chains and improve operational efficiency. As industries continue to seek higher-quality and more reliable components, precision machining technologies are becoming increasingly important. Yijin Solution's latest advancements reinforce its commitment to supporting evolving manufacturing requirements through continuous process improvement, technological innovation, and stringent quality standards @June 13, 2026.

PVC and Polystyrene Associations Push for Data-Driven Sustainability Regulations

Industry associations urge policymakers to rely on scientific data, life-cycle assessments, and proven recycling outcomes when shaping circular economy regulations.

South Africa's PVC and polystyrene industries have called on policymakers to adopt a balanced, evidence-based approach when shaping the country's circular economy framework, stressing that material decisions should be guided by scientific data, environmental performance, and real-world recycling outcomes rather than perception or blanket restrictions. The appeal was made jointly by the Southern African Vinyls Association (SAVA) and the African Polystyrene Industry Alliance (APIA), which emphasized that all materials should be evaluated on the basis of comprehensive life-cycle assessments and measurable sustainability indicators. The organizations argue that a circular economy can only succeed if policies recognize the unique characteristics, applications, and recovery pathways of different materials.



SAVA and APIA also stressed that decisions affecting material use should consider broader environmental and economic impacts, including resource efficiency, carbon footprint, product performance, and end-of-life management. They maintain that excluding specific materials without robust scientific justification could limit opportunities for innovation and reduce the effectiveness of circular economy initiatives.

The call comes as South Africa continues to develop policies aimed at reducing waste, increasing recycling rates, and transitioning towards a more resource-efficient economy. Industry stakeholders believe that science-led regulations and inclusive stakeholder engagement will be critical to achieving these objectives while maintaining industrial competitiveness and supporting sustainable economic growth @June 13, 2026.



Pirelli Extends Formula One Tyre Supply Deal Through 2028

Italian tyre manufacturer secures an additional year as Formula One's exclusive tyre supplier, reinforcing a partnership that has shaped the sport for more than a decade.

Pirelli will continue as the exclusive tyre supplier for Formula One until the end of the 2028 season after reaching an agreement with Formula One and the FIA to extend its existing contract by an additional year. The deal strengthens Pirelli's long-standing role in the championship and ensures continuity as the sport navigates a period of significant technical and regulatory evolution. The Italian tyre manufacturer has served as Formula One's sole tyre supplier since 2011, providing tyres for every team and playing a critical role in race strategy, performance, and safety. Under the new arrangement, Pirelli will also continue supplying tyres for the Formula 2 and Formula 3 feeder series, maintaining consistency across the FIA's single-seater racing ladder.



Beyond Formula One, the partnership provides Pirelli with a global platform to showcase technological advancements and transfer motorsport innovations into commercial tyre development. The company views Formula One as a valuable testing ground for research in performance, durability, sustainability, and safety.

Industry observers note that the contract extension reflects confidence in Pirelli's technical capabilities and its ability to support Formula One's long-term objectives. As the championship continues to grow globally, the renewed agreement ensures that teams and organizers will benefit from a stable and experienced tyre partner through the 2028 season @June 12, 2026.

Assam Becomes India's Third-Largest Rubber Producer, Industry Set for Further Expansion

Growing plantation area, government support, and rising industrial demand position Assam as a key player in India's natural rubber sector.

Assam has emerged as India's third-largest producer of natural rubber, marking a significant milestone in the growth of the state's plantation economy. The achievement places Assam behind only Kerala and Tripura, highlighting the increasing importance of the Northeast in strengthening the country's natural rubber supply chain. Industry experts and officials from the Rubber Board have emphasized the state's vast untapped potential for further expansion. Rubber cultivation currently covers around 50,000 hectares in Assam, with major production concentrated in districts such as Karbi Anglong, Goalpara, Kamrup, and Karimganj.



Beyond primary production, experts believe Assam has substantial opportunities to develop downstream rubber-based industries. Products such as tyres, gloves, footwear components, industrial goods, and other value-added rubber products could create new investment opportunities and generate employment across the region. The establishment of rubber parks and processing clusters has also been proposed to support industrial growth and strengthen the value chain.

With rising domestic demand for natural rubber and increasing participation from industry stakeholders, Assam is well positioned to play a larger role in India's rubber economy. Continued investment in plantations, processing infrastructure, research, and value-added manufacturing could further enhance the state's contribution to the sector while creating new livelihood opportunities for rural communities @June 11, 2026.



Evonik Advances Chemical Recycling Technologies to Support Circular Plastics Economy

Specialty chemicals company expands innovation efforts in catalysts, additives, and recycling processes to transform plastic waste into valuable raw materials.

Evonik is strengthening its commitment to circularity by advancing a range of technologies designed to improve the chemical recycling of plastics. The company is developing innovative solutions that help convert difficult-to-recycle plastic waste into valuable feedstocks that can be reintroduced into the production cycle, reducing dependence on virgin fossil resources. Chemical recycling plays an increasingly important role in addressing plastic waste streams that cannot be efficiently processed through conventional mechanical recycling. Through processes such as pyrolysis, depolymerization, and methanolysis, plastic materials can be broken down into their basic chemical building blocks, enabling the production of new plastics and other high-value products.



The company's broader Circular Economy Program brings together expertise across multiple industries and value chains to support sustainable resource management. Through investments in recycling technologies, circular feedstocks, and advanced materials, Evonik aims to create new opportunities for reducing waste, lowering carbon emissions, and improving resource efficiency across the plastics industry. As governments and manufacturers continue to seek solutions for managing growing plastic waste volumes, chemical recycling is gaining momentum as a complementary approach to mechanical recycling. Evonik's ongoing innovations in this area are expected to contribute to the development of a more sustainable and circular plastics ecosystem while helping industries meet increasingly ambitious environmental goals @June 11, 2026.

Z-Polymers Unveils Tullomer Fiber with Performance Beyond PEEK at Competitive Cost

New liquid crystal polymer fiber delivers exceptional strength, thermal stability, and processability for advanced industrial applications.

Z-Polymers has introduced its latest high-performance material, Tullomer, a liquid crystal polymer (LCP) fiber designed to deliver mechanical properties that significantly exceed those of conventional engineering polymers while remaining competitively priced against premium aramid fibers. The development represents a major step forward in the search for lightweight, durable, and cost-effective alternatives for demanding industrial applications.



In addition to its mechanical advantages, Tullomer demonstrates strong thermal and environmental performance. The material offers flame resistance, UV durability, chemical resistance, cryogenic stability, and low outgassing properties, making it suitable for applications in aerospace, defense, energy, medical devices, and industrial textiles. The polymer is also recyclable, supporting growing industry efforts toward sustainable material solutions. Z-Polymers believes the material can serve as an alternative to a range of traditional materials, including steel, aluminum, carbon fiber composites, PEEK, PEKK, and other advanced engineering polymers. The company has already commercialized Tullomer in filament form for additive manufacturing and is now expanding its focus toward fiber applications for high-performance textile and industrial markets. Industry interest in the technology has grown following recent strategic investment and development agreements aimed at accelerating commercialization and scaling production. As manufacturers continue to seek lighter, stronger, and more sustainable materials, Tullomer could emerge as a promising new option across multiple sectors requiring advanced mechanical and thermal performance @11, 2026



China National Tire and Rubber to Invest \$550 Million in Egypt Expansion

China National Tire and Rubber to Invest \$550 Million in New Egypt Tire Plant

China National Tire and Rubber Co. is set to expand its footprint in Egypt with a \$550 million investment to establish a new tire manufacturing facility in Alexandria, reinforcing the country's position as a growing industrial hub.

The expansion plan was discussed during a meeting between Egypt's Minister of Industry, Khaled Hashem, and company representatives led by Chairman Wang Jianjun. The project will be implemented through Promethean Tyres Egypt and will focus on producing tires for heavy-duty transport vehicles, agricultural tractors, and engineering equipment. In addition to the new facility, the investment includes upgrading and modernizing existing production lines. Once operational, the expansion is expected to add an annual production capacity of 1.5 million tires.



Hashem further pointed to government policies that prioritize locally manufactured products in public procurement, helping create stronger demand for domestic industrial output. Sustainability was also a key topic of discussion, with both sides reviewing initiatives related to energy efficiency, water treatment, and water reuse. The minister urged the company to maximize the use of solar energy at the new facility and increase the proportion of locally sourced materials in production. Wang expressed confidence in Egypt's investment climate, citing ongoing government efforts to support investors and remove business obstacles. He described the new project as part of the company's long-term growth strategy in Egypt, building on its existing manufacturing operations in Alexandria. Looking ahead, Wang said the company plans to broaden its product portfolio to include passenger car tires, targeting rising demand in both the domestic market and export destinations @June 10, 2026.

BKT Tyres Launches 24x7 'You Forward' Assistance Programme for Riders

BKT Tyres has introduced "BKT You Forward," a nationwide 24x7 journey assistance programme aimed at enhancing safety, convenience, and confidence for two-wheeler riders.

The initiative marks the company's expansion beyond tyre manufacturing into mobility support services, offering assistance throughout the ownership journey rather than only at the point of purchase. The programme provides round-the-clock support through a dedicated helpline and is designed to assist riders facing unexpected situations such as punctures, vehicle breakdowns, accidents, or other roadside emergencies. Services include towing support, on-call tyre repairs, jump-start assistance, fuel delivery, route guidance, ambulance coordination, cab arrangements, and legal assistance, depending on the selected plan.



According to BKT Tyres, the initiative aligns with its "Elevate Your Drive" philosophy, which focuses on delivering a more comprehensive mobility experience for consumers. The company believes timely assistance and dependable support can significantly improve rider confidence, particularly in a market where two-wheelers remain a primary mode of transportation for millions of people. To promote the launch, BKT has rolled out a digital campaign featuring veteran actor Rakesh Bedi.

The campaign highlights common roadside challenges faced by riders and demonstrates how immediate support services can help transform stressful situations into manageable experiences. The launch reflects a broader trend within the automotive and mobility sectors, where manufacturers are increasingly complementing their products with value-added services aimed at improving customer engagement and strengthening brand loyalty. Through BKT You Forward, the company aims to position itself not just as a tyre supplier, but as a long-term mobility partner for Indian riders @June 6, 2026.



Toray Strengthens Presence in India Through Engineering Plastics Project

Japanese materials manufacturer Toray Industries is planning to establish a new plastics production facility in India as part of its strategy to capitalize on the country's rapidly growing automotive sector.

The investment reflects increasing confidence among global manufacturers in India's position as one of the world's fastest-growing automobile markets.

The proposed facility will focus on the production of high-performance engineering plastics used in automotive applications. These materials are widely utilized in vehicle components due to their lightweight properties, durability, and ability to help improve fuel efficiency and support vehicle electrification. As automakers seek to reduce vehicle weight and enhance performance, demand for advanced plastics continues to grow.



Toray's planned investment aligns with the company's broader strategy of expanding its presence in high-growth Asian markets. The company is a major producer of fibers, textiles, plastics, chemicals, carbon fiber composites, and advanced materials used across industries including automotive, aerospace, electronics, and healthcare. By establishing manufacturing operations in India, Toray aims to improve responsiveness to customer requirements, reduce logistics costs, and support domestic automotive manufacturers with locally produced materials. The move is also expected to contribute to the development of India's advanced materials ecosystem and strengthen the country's manufacturing capabilities. Industry observers note that demand for engineering plastics is likely to accelerate further as vehicle manufacturers increase the use of lightweight materials to comply with efficiency standards and support the transition toward electric mobility. The new facility is therefore expected to play an important role in meeting future material requirements of India's automotive industry @June 6, 2026

NTU's DIPS Technology Offers Sustainable Alternative for Complex Waste Recycling

Researchers at Nanyang Technological University (NTU) Singapore have developed a new solvent-free recycling technology that could help address one of the textile and packaging industry's most persistent sustainability challenges.

The innovation enables the efficient separation and recovery of materials from mixed waste streams without relying on hazardous chemical solvents, offering a cleaner and potentially more scalable recycling solution.

The technology, known as Depolymerization-Induced Polymer Separation (DIPS), uses a process called reactive extrusion, in which standard industrial extrusion equipment functions both as a manufacturing tool and a chemical reactor. During the process, specific polymer components are selectively broken down while other materials remain intact, allowing them to be separated and recovered for reuse.



The breakthrough aligns with broader efforts to advance circular economy practices within the textile and packaging sectors. NTU has been actively involved in sustainability-focused research through initiatives such as the RGE-NTU Sustainable Textile Research Centre, which works on cleaner recycling technologies, fibre recovery, waste reduction, and sustainable material innovation. Researchers believe the technology could eventually be adapted for a wider range of mixed-material waste streams, including complex textile products that are traditionally difficult to recycle.

The team is now exploring collaborations with industry partners to validate the process at larger scales and accelerate commercial adoption. As sustainability requirements continue to tighten across global supply chains, innovations such as NTU's solvent-free recycling technology could play a significant role in reducing waste, improving resource efficiency, and supporting the transition toward more sustainable textile and materials manufacturing @June 6, 2026.



Nokian Tyres Accelerates Digital Transformation with TCS Partnership

Collaboration will leverage AI, agentic automation, and cloud technologies to modernize IT operations, improve business agility, and support Nokian Tyres' global growth ambitions.

Tata Consultancy Services (TCS) has announced a strategic partnership with Nokian Tyres, one of the world's leading tyre manufacturers, to modernize the company's IT operations through artificial intelligence (AI), agentic automation, and advanced digital technologies. The collaboration marks a significant step in Nokian Tyres' digital transformation journey as it seeks to enhance operational efficiency, strengthen cybersecurity, and build a future-ready technology ecosystem. Under the agreement, TCS will serve as Nokian Tyres' strategic IT transformation partner, helping the company streamline and modernize its global IT infrastructure. The initiative will focus on deploying AI-powered solutions and agentic automation capabilities to automate routine tasks, improve service delivery, and optimize IT management processes.



TCS will leverage its expertise in AI, cloud computing, and enterprise technology services to help Nokian Tyres optimize business processes and unlock greater value from its digital investments. The collaboration also reflects the growing trend among manufacturing companies to adopt AI-powered technologies to enhance productivity, reduce costs, and improve customer experiences. As the tyre industry undergoes rapid technological change, digital transformation is becoming increasingly important for maintaining competitiveness. Through this partnership, Nokian Tyres aims to create a more intelligent and resilient IT ecosystem that can support innovation, operational excellence, and sustainable long-term growth @June 5, 2026.

Continental Boosts Thailand Operations with New Motorcycle Tyre Manufacturing Line

Investment in motorcycle radial tyre production enhances Continental's manufacturing capabilities in Thailand and supports growing demand across Asian and global two-wheeler markets.

German tyre manufacturer Continental has expanded its manufacturing operations at its Rayong facility in Thailand by adding motorcycle radial tyre production capabilities. The investment strengthens the company's presence in the fast-growing two-wheeler tyre segment while enhancing its manufacturing footprint in Southeast Asia. The expansion enables the Rayong plant to produce premium radial tyres for motorcycles, a category experiencing increasing demand across Asia and other global markets. By integrating motorcycle tyre production into the facility, Continental aims to improve supply chain efficiency, shorten delivery times, and better serve original equipment manufacturers (OEMs) as well as the replacement market.



The addition of motorcycle radial tyre production reflects growing demand for high-performance tyres that offer improved stability, handling, and safety. Radial tyre technology has gained popularity among motorcycle manufacturers and riders due to its ability to deliver better road grip, durability, and riding comfort compared to conventional bias-ply tyres. The investment is also aligned with Continental's broader strategy of expanding its tyre business and strengthening its position in key mobility markets. The company continues to focus on innovation, advanced manufacturing technologies, and sustainable production practices across its global operations. With the latest expansion, the Rayong plant is expected to play a greater role in supporting regional and international demand for premium motorcycle tyres, reinforcing Thailand's importance within Continental's global manufacturing network @June 5, 2026.



Advanced Manufacturing Drives Growth of Plastic Pallet Production

Advanced molding technologies and recyclable materials are helping plastic pallets become a preferred choice for modern logistics, warehousing, and industrial supply chains.

A recent video feature has provided a behind-the-scenes look at the manufacturing process of plastic pallets, highlighting the advanced production technologies used to create one of the logistics industry's most widely used material-handling products. Plastic pallets have gained popularity across warehousing, food processing, pharmaceuticals, retail, and export logistics due to their durability, hygiene, and long service life. The manufacturing process typically begins with thermoplastic raw materials such as high-density polyethylene (HDPE) or polypropylene (PP). These materials are blended according to performance requirements and fed into molding equipment, where they are heated and processed into pallet structures. Depending on the application, manufacturers may incorporate recycled plastic content to improve sustainability and reduce production costs.



After molding, pallets undergo finishing operations such as trimming excess material, installing anti-slip components, and quality inspections to ensure compliance with industry standards. Automated production lines and advanced molding systems enable manufacturers to produce large volumes of pallets while maintaining uniform quality and performance. Plastic pallets offer several advantages over traditional wooden alternatives, including resistance to moisture, chemicals, pests, and splintering. Their lightweight construction can help reduce transportation costs, while their durability supports repeated use in closed-loop supply chains. Many modern plastic pallets are also recyclable at the end of their service life, supporting circular economy initiatives within the packaging and logistics sectors. As industries continue to prioritize efficiency, hygiene, and sustainability, demand for plastic pallets is expected to grow across global supply chains. Advances in manufacturing technology and increased use of recycled materials are further strengthening the role of plastic pallets in modern logistics and material-handling operations @June 5, 2026.

India's Tyre Industry Achieves Highest-Ever Exports in FY26

Industry records exports worth ₹27,312 crore as manufacturers expand global presence and strengthen production capabilities

India's tyre industry achieved a record export performance in FY2025-26, with exports rising 9% year-on-year to ₹27,312 crore, according to data from the Ministry of Commerce. This marks the second consecutive year of 9% growth in tyre exports, reflecting the sector's resilience despite global economic uncertainties, geopolitical tensions, and changing trade dynamics. The United States remained the largest export destination for Indian tyres during the fiscal year, accounting for exports worth ₹4,082 crore, representing approximately 15% of the total export value. However, the country's share declined from 17% in the previous fiscal year due to changes in U.S. trade policies that impacted the competitiveness of Indian tyre products.



Looking ahead, the industry remains optimistic about future growth prospects. Continued market diversification, ongoing capacity expansion, and India's growing position as a global manufacturing hub are expected to support export momentum. Industry stakeholders also believe that new trade opportunities and stronger integration into international supply chains will further boost the global competitiveness of Indian tyre manufacturers @June 4, 2026



Rubber Board Opens Common Processing Centre in Garo Hills to Boost Farmer Income

New facility aims to improve rubber quality, reduce processing costs, and strengthen market access for growers across Meghalaya

In a significant step towards strengthening the rubber sector in Meghalaya, the Rubber Board of India has inaugurated a Group Processing Centre at Kawak in Mendipathar, East Garo Hills. Established by the Garo Hills Rubber Producers' Society (GHRPS), the facility is expected to enhance rubber quality, improve farmer earnings, and provide better market access for rubber growers across the region. The processing centre was inaugurated by M. Vasanthagesan, Executive Director of the Rubber Board of India, in the presence of Rubber Production Commissioner Dr. Siju T., Joint Director (Production and Quality Control) P. Arumugam, senior Rubber Board officials, local stakeholders, and rubber farmers.



The newly inaugurated processing centre is expected to be particularly beneficial for growers in Garo Hills, where rubber plantations are spread across remote and scattered locations. By bringing farmers together under a common processing facility, the centre will enable the production of higher-quality rubber sheets in larger volumes while maintaining uniform standards, thereby improving the marketability and value of the region's rubber output. Industry leaders and stakeholders present at the inauguration emphasized that collective processing facilities play a crucial role in improving product quality, securing better prices for growers, and promoting the sustainable development of the rubber industry in Meghalaya. GHRPS President M. Ch. Marak described the inauguration as a major milestone for rubber farmers in Garo Hills and expressed confidence that the facility would contribute to higher productivity, improved quality control, and enhanced livelihoods for the farming community @June 4, 2026.

APR and ANIPAC Join Forces to Strengthen Plastics Recycling in Mexico

Collaboration aims to strengthen recyclability standards, promote recycled content usage, and accelerate circular economy initiatives across Mexico's plastics industry

The Association of Plastic Recyclers (APR) and Mexico's National Association of Plastics Industries (ANIPAC) have entered into a strategic partnership to enhance plastics recycling and advance circular economy practices in Mexico. Announced during Plastics Recycling LATAM 2026, the agreement seeks to improve collaboration across the plastics value chain while promoting sustainable materials management and internationally recognized recycling standards. As part of the partnership, APR will provide technical expertise, design-for-recycling guidance, and training resources to help manufacturers and recyclers improve the recyclability of plastic products and packaging.



ANIPAC, which represents a broad range of stakeholders within Mexico's plastics industry, including resin producers, converters, recyclers, distributors, and machinery suppliers, will work to promote the adoption of global best practices and recycling standards among its members. The initiative is expected to enhance the industry's sustainability performance while aligning it more closely with international circular economy goals. The collaboration will also facilitate the exchange of technical knowledge, regulatory insights, and market information, enabling both organizations to develop joint projects and educational initiatives that support the growth of recycling infrastructure and capabilities in the region. Industry leaders from both organizations emphasized the importance of cross-border cooperation in addressing recycling challenges and creating a more sustainable plastics ecosystem. By combining expertise and resources, APR and ANIPAC aim to strengthen Mexico's recycling sector, increase the value and utilization of recycled materials, and contribute to long-term environmental and economic sustainability @June 4, 2026.



Mother Dairy Launches India's First Naturally Degradable Milk Pouch

New packaging innovation aims to tackle plastic waste while maintaining recyclability, product quality, and consumer affordability

Mother Dairy has introduced what it describes as India's first naturally degradable milk pouch, marking a significant advancement in sustainable packaging for the dairy sector. The new packaging will be rolled out in the Delhi-NCR market from June 5, coinciding with World Environment Day, beginning with the company's Cow Milk variant. Developed after more than four years of research, the innovative pouch uses a proprietary degradable packaging technology that enables the material to transform into bioavailable wax, which is subsequently broken down by naturally occurring soil microbes into natural elements. Unlike conventional plastic packaging that can persist in the environment for centuries, the new pouch is designed to degrade in soil within a few years while leaving no trace of plastic residue.



Speaking on the development, Mother Dairy said the innovation is intended to address the growing challenge of "fugitive plastic" — plastic waste that escapes collection and recycling systems and eventually enters the environment. By introducing packaging that naturally breaks down in soil, the company aims to reduce the long-term environmental impact associated with the billions of plastic milk pouches used annually across India. The launch forms part of Mother Dairy's broader sustainability agenda and reflects increasing efforts within the dairy industry to develop environmentally responsible packaging solutions. The company, which markets approximately 5.5 million litres of milk daily across multiple states, believes the innovation can help set new benchmarks for sustainable packaging while supporting the sector's transition toward a more circular and environmentally conscious future @June 3, 2026.

Plastipak's Nylon-Free O2Blox Technology Enhances Recyclability of PET Barrier Packaging

Innovative oxygen-barrier solution supports bottle-to-bottle PET recycling while maintaining product protection and shelf life

Plastipak has strengthened its sustainable packaging portfolio with the advancement of O2Blox™, a nylon-free PET oxygen-barrier technology designed to improve the recyclability of barrier packaging without compromising performance. The innovation addresses a long-standing challenge in PET packaging by providing oxygen protection for sensitive products while remaining compatible with existing PET recycling systems. The technology has received recognition from the Association of Plastic Recyclers (APR) through its Critical Guidance Path program and has also secured RecyClass Technology Approval for clear bottle-to-bottle PET recycling applications. These certifications confirm that O2Blox™ can be processed within established recycling streams, helping preserve the quality of recycled PET material.



According to Plastipak, O2Blox™ was developed by combining expertise in packaging engineering, sustainability, and manufacturing to create a barrier solution that aligns product protection with recycling system requirements. The company believes the technology will help brand owners meet evolving regulatory expectations around recyclability and recycled content while reducing risks associated with packaging redesign. As packaging regulations become increasingly focused on circularity, innovations such as O2Blox™ are expected to play a crucial role in enabling high-performance PET packaging that supports both product integrity and efficient recycling, advancing the industry's transition toward more sustainable packaging systems @June 3, 2026.



Indonesia Advances Plastic Waste-to-Fuel Technology with New Industrial-Scale Pyrolysis System

New industrial-scale system can process 1.25 tonnes of plastic waste daily, supporting waste reduction and alternative energy production

Indonesia's National Research and Innovation Agency (BRIN) has unveiled a second-generation pyrolysis technology designed to convert plastic waste into industrial fuel, marking a significant step toward addressing the country's growing waste management challenges while supporting alternative energy production. The technology, known as the Advanced Pyrolysis System for Industrial-Scale Plastic Waste Conversion, is capable of processing approximately 1.25 tonnes of plastic waste per day.



Unlike conventional systems that require extensive waste segregation, the new process employs a continuous multi-stage operating mechanism that allows plastic waste to be fed directly into the reactor, improving operational efficiency and reducing preprocessing requirements. According to BRIN researcher Agus Kismanto, the system represents a major improvement over the agency's first-generation technology, which handled around 400 kilograms of plastic waste daily. Researchers are now working to further expand the system's capacity, with plans to increase throughput to up to five tonnes per day in future developments. The innovation is expected to strengthen Indonesia's waste management infrastructure by creating greater economic value from plastic waste streams. By converting discarded plastics into usable fuel products, the technology offers a dual benefit of reducing environmental pollution while contributing to the nation's energy resources. Pyrolysis technology works by heating plastic materials in an oxygen-free environment, breaking them down into fuel and other useful by-products. The approach is increasingly being explored worldwide as a sustainable solution for tackling plastic waste and promoting circular resource utilization. BRIN believes the new system could support the wider deployment of waste-processing facilities across Indonesia, helping municipalities and industries improve waste recovery rates while advancing the country's sustainability and environmental objectives @June 3, 2026.

Mitsui Chemicals' Biomass Plastics Adopted in Toshiba Transformers

Bio-based plastic materials will be used in Toshiba's molded transformers to support carbon neutrality and sustainable manufacturing goals.

Japan-based Mitsui Chemicals has announced that its biomass-based plastics, produced using the mass balance approach, have been incorporated into plastic components used in molded transformers manufactured by Toshiba Industrial Products and Systems Corporation. The move is aimed at supporting carbon-emission reduction efforts while ensuring the high levels of performance, safety, and reliability required in industrial electrical equipment. The biomass plastics are being utilized in several plastic parts of Toshiba's molded transformers that meet Japan's upcoming 2026 Top Runner energy-efficiency standards. In addition, the materials have also been adopted for coils used in extra-high-voltage molded transformers, expanding the application of sustainable materials in advanced power infrastructure.



Mitsui Chemicals stated that the plastics are manufactured from renewable biomass resources through the mass balance method. This approach enables bio-based feedstocks to be incorporated into existing production systems while delivering the same physical characteristics and performance as conventional petroleum-derived plastics. By adopting these materials, the companies aim to advance sustainability initiatives without compromising product quality or operational efficiency. The collaboration reflects a growing trend within the electrical and industrial manufacturing sectors to integrate lower-carbon materials into products, supporting broader environmental goals and the transition toward more sustainable manufacturing practices @June 2, 2026.



RBI May Introduce Plastic ₹10 and ₹20 Notes to Improve Durability and Reduce Costs

The Reserve Bank of India (RBI) is reportedly reviving its long-pending plan to introduce polymer, or plastic, currency notes as part of efforts to improve the durability of banknotes and reduce long-term printing costs.

According to recent reports, the central bank is considering launching a pilot project involving ₹10 and ₹20 denomination notes, which are among the most frequently used and quickly worn-out currencies in circulation.

The proposal was reportedly discussed during recent RBI board meetings held in Patna and Mumbai. The move comes at a time when the demand for physical cash continues to remain strong despite the rapid expansion of digital payment systems across the country. Currency in circulation has witnessed significant growth, prompting the RBI to explore more durable alternatives to conventional paper-based banknotes. Polymer banknotes are manufactured using a thin, flexible plastic substrate instead of the traditional cotton-based paper used in Indian currency.



India had previously explored polymer currency in 2012 through a limited field trial of ₹10 notes across selected cities. However, the initiative was eventually shelved due to technological and operational challenges. Recent advancements in currency-handling technology and ATM compatibility have reportedly addressed many of those concerns, paving the way for a possible revival of the project.

While no official launch date has been announced, industry observers believe a phased rollout could begin with lower denomination notes before any wider implementation is considered. The proposed move reflects the RBI's ongoing efforts to modernise currency management while ensuring greater durability, security and cost efficiency in the country's cash-based transactions @June 2, 2026.

PepsiCo Converts Old Carpets and Plastic Waste into New Beverage Bottles

Partnership with Eastman uses advanced recycling technology to transform hard-to-recycle plastics into food-grade packaging.

PepsiCo is advancing its sustainable packaging initiatives by converting old carpets, clothing fibres and other hard-to-recycle plastic waste into new beverage bottles through a multi-year partnership with materials company Eastman. The initiative aims to reduce dependence on virgin plastic while supporting a more circular packaging economy. The company is using Eastman's advanced molecular recycling technology, which breaks down difficult-to-recycle polyester-based plastics into their original molecular components and rebuilds them into high-quality, food-grade recycled plastic suitable for beverage packaging. Materials such as carpet fibres, coloured plastic bottles, films and textile waste that would typically end up in landfills can now be repurposed into new bottles.



PepsiCo has already started rolling out Gatorade bottles in the United States made using recycled plastic produced through the technology. The company said the approach complements traditional mechanical recycling systems by processing waste streams that are difficult to recycle through conventional methods. According to PepsiCo, the project forms part of its broader sustainability strategy focused on increasing recycled content in packaging, reducing virgin plastic usage and improving packaging circularity across its global beverage portfolio. Industry experts believe advanced recycling technologies could play a significant role in addressing plastic waste challenges by expanding the range of materials that can be recycled and reused in high-value packaging applications @June 2, 2026.



INDUSTRY PROFESSIONALS



- Mr. Michael Anderson
- M.S. in Polymer Engineering
- President & Chief Executive Officer
- American Polymer Technologies Inc., USA
- michael.anderson@aptinc.com

He is a highly accomplished industry executive with over 30 years of experience in the plastics and rubber manufacturing sector. He has led large-scale production facilities across North America and driven innovation in advanced polymers, sustainable materials, and smart manufacturing technologies for global markets.



- Mr. Rahul Aditya
- Ph.D. in Polymer Engineering
- Director – Global Operations & Innovation
- AKL Advanced Materials GmbH
- rahul@aklmaterials.com

He is a seasoned industry expert with over 28 years of experience in the polymer, plastics, and rubber sector. He has led large-scale manufacturing operations and pioneered advanced material innovations across Europe and Asia. His expertise spans polymer processing technologies, sustainable material development, and global supply chain optimization.



- Mr. Arjun Kapoor
- MBA – Operations Management
- Managing Director
- GreenTech Plastics Pvt. Ltd.
- arjun@greentechplastics.com

He has over 22 years of expertise in plastic processing, packaging solutions, and business transformation. His focus is on operational excellence, circular economy practices, and expanding sustainable plastic manufacturing across emerging global markets.

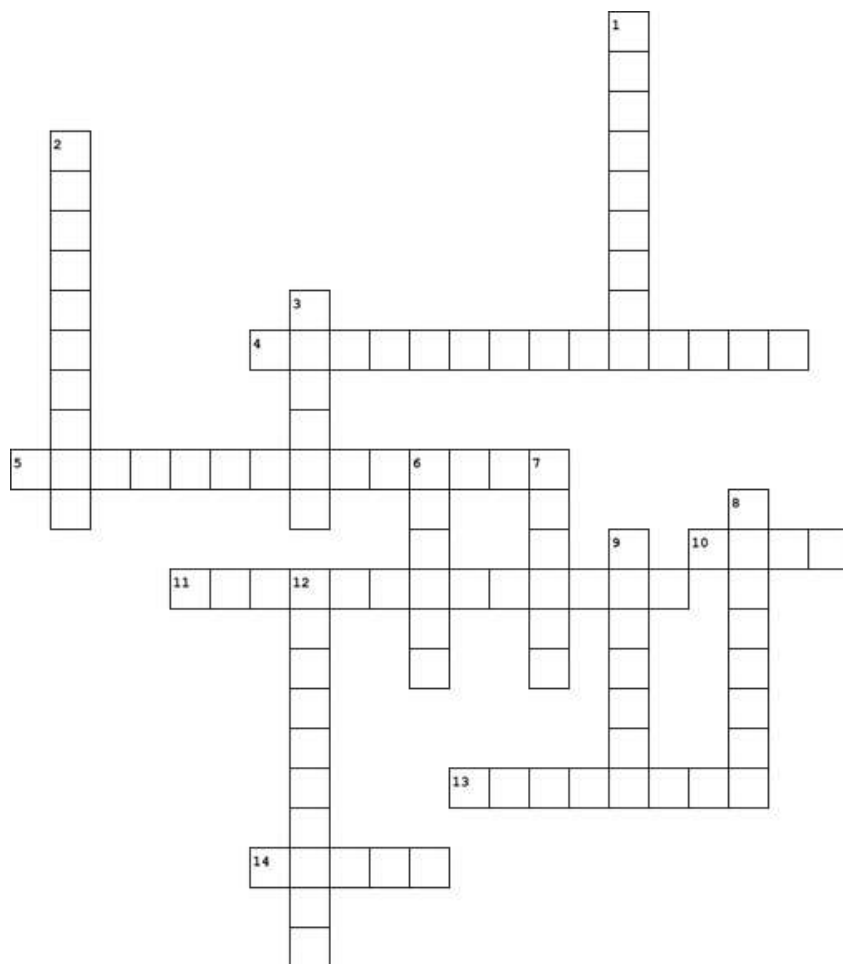


- Ms. Neha Sharma
- M.Tech. in Polymer Technology
- Head – Product Development
- Prime Plastics Ltd.
- neha@primeplastics.com

She has over 20 years of experience in engineering plastics, injection molding, and product innovation. She has played a significant role in developing lightweight, durable, and recyclable plastic solutions for automotive, consumer goods, and packaging industries.



"Scientists found crossword puzzles were better at improving later cognitive disease stages, but both crosswords and brain games positively impacted early stages. They also found that those who did crossword puzzles ended up having less brain shrinkage based on MRI results"



ACROSS:

4. Biodegradable plastics are designed to break down through the action of _____.
5. Plastics are primarily made from _____ obtained from crude oil and natural gas.
10. Carbon black is added to rubber mainly to improve its _____ resistance.
11. Rubber becomes stronger and more elastic through a process called _____.
13. PVC stands for Polyvinyl _____.
14. Natural rubber is primarily obtained from the latex of the _____ tree.

DOWN:

1. The process used to manufacture plastic pipes is called _____.
2. Nylon belongs to the family of polymers known as _____.
3. High-Density Polyethylene (HDPE) has a _____ density than LDPE.
6. Thermosetting plastics cannot be reshaped after _____.
7. Thermoplastics can be melted and reshaped because they _____ on heating.
8. PET is widely used for manufacturing _____ bottles.
9. The basic repeating unit of a polymer is known as a _____.
12. Blow molding is mainly used for producing hollow plastic _____.



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Bangalore International Exhibition center, India
<https://www.plastemart.com/plastech-india-expo-2026/plastics-exhibition-conferences/5352>



31 Aug - 02 Sep '2026
BEC, NESCO, Mumbai, India.
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Brijendra Swaroop Park, Kanpur, U.P India
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21-25 Jan '2027.
Bombay Exhibition Centre, Mumbai.
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11-14 June '2027.
Chennai Trade Centre, Nandampakkam, Chennai, India.
<https://www.iplas.in/2027/v3/doc/index.php>



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