



Engineering Plastics

in Various Applications

January 2025

Why Engineering Plastics?

Explore The Latent Opportunity with **Benori**

What is Engineering Plastics

The term "engineering plastics" denotes a category of thermoplastic materials that provide better mechanical properties than standard commodity plastics, making them well-suited for structural applications.



Beneficial Properties of Engineering Plastics

Low Carbon Footprint

**Customizing
Engineering Plastics**



**Stronger than
Typical Plastics**

Types of Engineering Plastics

Acrylonitrile Butadiene Styrene (ABS)

Polycarbonate (PC)

Polyamide (PA)

Styrene Acrylonitrile (SAN)

Polymethylmethacrylate (PMMA)




Polybutylene Terephthalate (PBT)




Polyphenylene Sulfide (PPS)

Polypropylene (PP)

A Glance at Common Products

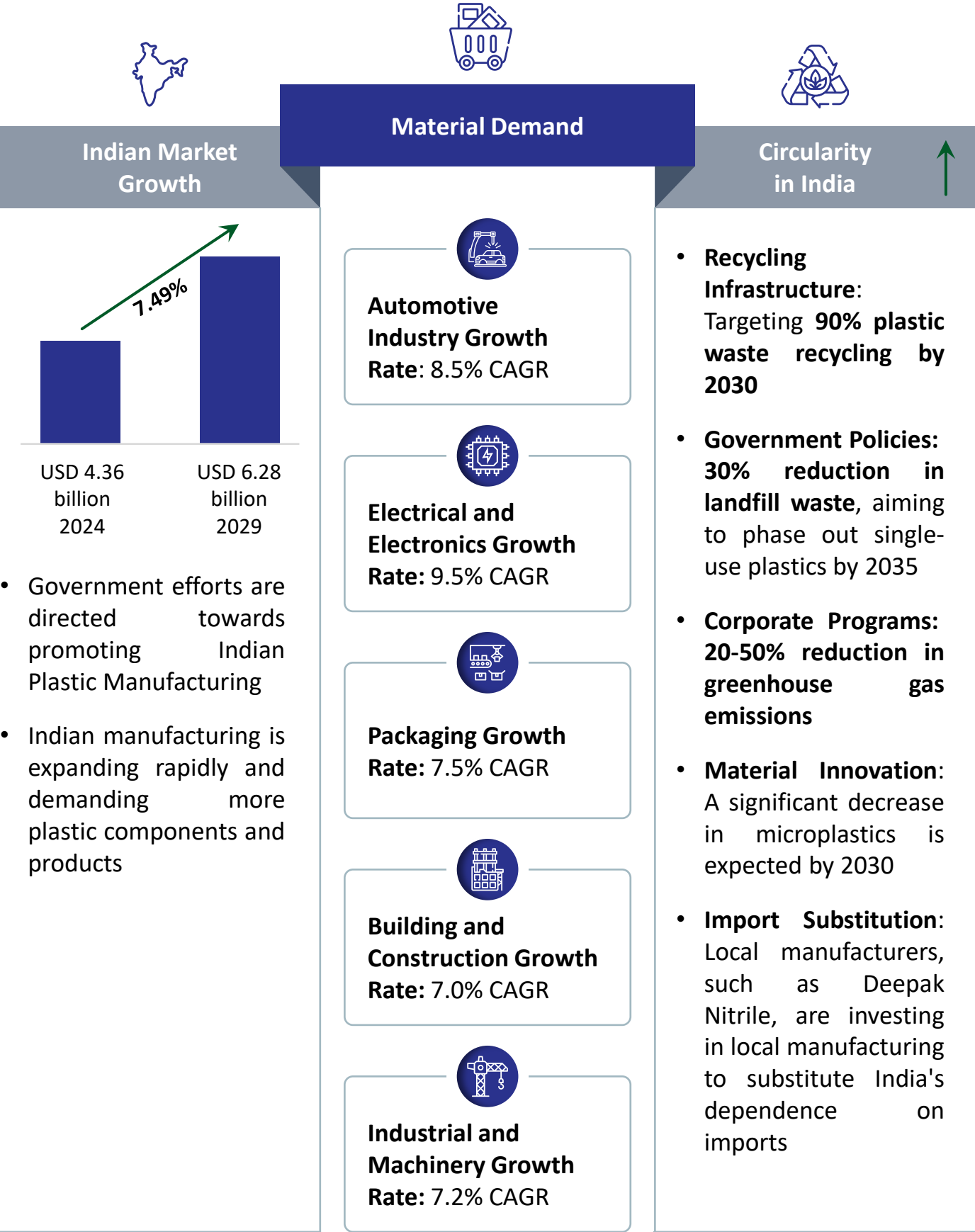
Benchmarking and Assessing Value Chains In-depth with **Benori** Expertise

 Type of Engineering Plastic	 Typical Applications	 Properties
Polycarbonate (PC)	Motorcycle helmets, optical discs, safety glasses	High impact resistance, transparency
Acrylonitrile Butadiene Styrene (ABS)	Automotive parts, electronic housings, LEGO bricks	Toughness, impact resistance
Polyamide (Nylon)	Gears, bearings, ski bindings	Strength, abrasion resistance
Polyoxymethylene (POM)	Precision parts like gears and fasteners	High stiffness, low friction
Polyethylene Terephthalate (PET)	Food and beverage containers, automotive and electronics applications	Strength, chemical resistance, good barrier properties
Polyetheretherketone (PEEK)	Aerospace, automotive, medical implants	Excellent mechanical properties, chemical resistance, high temperature stability
Polytetrafluoroethylene (PTFE)	Non-stick cookware, gaskets, seals	Non-stick properties, chemical resistance, high-temperature resistance

 Form	 Description	 Common Uses
Pellets/Granules	Small, uniform pieces used in injection molding and extrusion processes	Manufacturing of various plastic parts and products
Sheets and Rods	Flat sheets and cylindrical rods used for machining into specific shapes	Custom parts, structural components
Films	Thin layers of plastic	Packaging, electronics, protective coverings
Powders	Fine particles used in coatings and composite materials	Surface coatings, composite manufacturing
Preforms	Intermediate shapes that can be further processed into final products	Bottles, containers, and other molded items

Engineering Plastics Market Landscape

Benori Helps with the Latest Market Trends and Drivers



Unlocking Opportunities

Benori can Support in Identifying Sector-specific Demand

Frontrunners

Indian manufacturers are increasingly adopting engineering plastics to enhance performance, reduce costs, and improve efficiency, driving the rising demand in the manufacturing sector.



246 KT
Automobile



228 KT
Electrical &
Electronics



133 KT
Consumer Goods,
Packaging, Medical



65 KT
Construction

Laggards

While the following applications demand lower volumes, the technical specifications are more rigorous, and the value is higher.



Aerospace

High strength-to-weight ratio, excellent thermal stability, resistance to chemicals, and radiation



Sports Equipment

Lightweight, high impact resistance, durability, flexibility



Marine Applications

Corrosion resistance, UV stability, high mechanical strength

Key Stakeholders and their Challenges

Benori Can Help Identify Challenges and Explore Best Practices

Stakeholders



Policy Makers

Establishing regulations, providing incentives, and helping to create an ecosystem to boost the manufacturing of engineering plastics in India

Challenges

01

Lack of Tax Incentives

02

Lack of Regulation for End-use Industry

03

Ecosystem Development



Industries

Efficient manufacturing, recycling, and distribution of polymers.

Challenges

01

Technological Gap

02

High Capital Investment

03

Competition from Imports



Key Players Driving Innovation in Engineering Plastics

Benori Helps You Get That Competitive Edge



bhansali engineering polymers limited

A producer of low-cost ABS in India that meets global quality standards.

A proposed expansion of ABS production capacity from 75,000 TPA to 200,000 TPA at the company's existing plants in Abu Road, Rajasthan, and Satnoor, Madhya Pradesh.



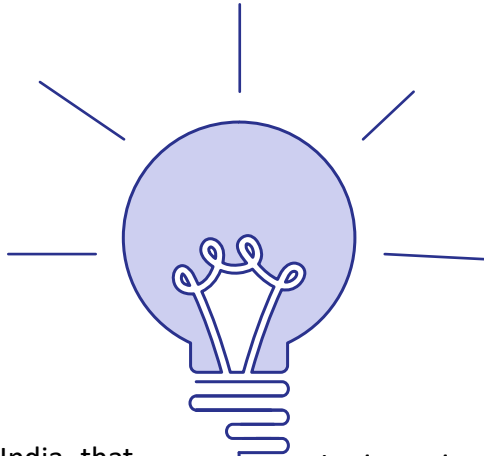
Leading producer of advanced and high-performance polymers globally and in India, specializing in polycarbonate and polyurethane.

In December 2021, the company doubled its polycarbonate compounding capacity at its Greater Noida facility



ABS & compounds is one of the leading manufacturers of polystyrene.

Phase 1 of the 70,000 TPA ABS project will be online between April and June 2025 at the Nagothane facility, with plans to add another 70,000 TPA line in Phase 2. Currently, they have a capacity of 10,000 tons.



Loxim is a manufacturer headquartered in India and is a global supplier of Polycarbonate and its blends across different industries.

Has a production capacity of 20,000 MTPA.



The largest manufacturer of suspension-grade Polyvinyl Chloride (PVC) with a wide range of viscosities.

Planning to construct the world's largest PTA plant with a capacity of 3 MMTPA and establish PVC and CPVC manufacturing facilities with a combined capacity of 1.5 MTPA by FY2026-27






Leading global supplier of styrenics, specializing in styrene monomer, polystyrene, ABS standard, and styrenic specialties.

Anticipates starting operations at its increased ABS and PS facilities in Dahej and Nandesari, in Gujarat, prior to 2028.

We Can Help You With...

researching on market, competition, and technology

 Quantitative Analysis	 Qualitative Analysis	 Supporting Analysis
Market Sizing and Projections	Trends and Drivers	Value Chain/Supply Chain
Market Segmentation	Factors Influencing Market	Patent Analysis
Demand and Supply	Benchmarking	Supplier Identification
Players' Share	Market Entry	Pricing Analysis
Regional Analysis	Porters Analysis	SWOT, PESTEL Analysis



Solutions

- Market Landscape
- Competition Intelligence
- Supplier Intelligence
- Technology Landscape
- Product Benchmarking
- Market Entry
- Pricing Intelligence



Benori is a trusted partner for knowledge solutions across the globe, serving clients from a wide range of industries, including Professional Services, Financial Services, Consumer & Retail, Technology & Internet, Industrials & Manufacturing, and more. Our customized solutions strengthen the insights value chain of our clients, empowering them with key insights needed to drive intelligent decision-making and accelerate growth.

Headquartered in India, Benori is uniquely positioned to deliver multilingual research needs of global clients, powered by its digital agility, deep research capabilities and a highly experienced leadership team. Adopting a 360-degree approach, our team employs a combination of diverse methodologies, including primary research, secondary research and data modeling, and offers detailed foresight on market trends, competitive shifts, regulatory changes and technological advancements.

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