



BUILDING MATERIALS

India's BUILDING MATERIAL INDUSTRY

US\$ 122 billion or 3.3% of the GDP. Notably, the allocation for Railways is at a historic high of US\$ 29 billion marking a substantial increase from 2013-14. The National Infrastructure Pipeline (NIP) has expanded to encompass 9,142 projects across 34 sub-sectors, with a focus on the transportation sector, where 3,906 projects, including roads and bridges, are in development. The Logistics Market in India is projected to reach US\$ 50.52 billion by 2028, with the government targeting a reduction in logistics costs from 14% to 8% of GDP and aiming to improve the Logistics Performance Index ranking to 25 within the next five years. In the aviation sector, a capital outlay of US\$ 11.8 billion is planned for the expansion and modification of existing terminals, new terminals, and runway strengthening over the next five years. Additionally, the Civil Aviation Ministry envisions 190-200 functioning airports in India by 2040, with Delhi and Mumbai having three international airports each.

In the area of transportation advancements, with the UDAN initiative aiming to complete 220 Airport destinations by 2026 and the metro network in India, currently the world's fifth-largest, set to become the third-largest, surpassing Japan and South Korea. India plans to spend US\$ 1.4 trillion on infrastructure through the National Infrastructure Pipeline in the next five years. The Pradhan Mantri Awas Yojna scheme has made significant strides, sanctioning 12M houses, and completing 6M homes as of August 2022. Over the next decade, the development of hundreds of new cities is envisioned, responding to the predicted 140% increase in demand for urban freight. The Indian logistics market is projected to reach US\$ 320 billion by 2025, and overall infrastructure capital expenditure is estimated to grow at a CAGR of 11.4% from 2021 to 2026, playing a significant role in the country's GDP.

All of above entailing growth of Budget outlays will have significant impact on Indian "**Indian construction and building Material Industry**".

Each sector in the building materials industry plays a vital role in the construction process, and the industry as a whole is shaped by factors such as sustainability, technological advancements, and evolving market trends. Companies within these sectors contribute significantly to the development of residential, commercial, and infrastructure projects on a global scale.

The building materials industry is multifaceted, comprising various sectors that play integral roles in construction and infrastructure development. Here are detailed insights into key sectors within the building materials industry:

1. Cement and Concrete:

1. Overview: Cement serves as the primary binding material, while concrete is a fundamental construction component.
2. Key Products: Ordinary Portland Cement (OPC), Portland Pozzolana Cement (PPC), Ready Mix Concrete (RMC).
3. Key Players: LafargeHolcim, CEMEX, UltraTech Cement.

2. Steel and Metal Products:

1. Overview: Steel is indispensable for structural elements, reinforcing bars, and various metal products.
2. Key Products: Structural steel, reinforcing bars, steel pipes, roofing materials.
3. Key Players: ArcelorMittal, Tata Steel, Nippon Steel.

3. Wood and Timber Products:

1. Overview: Wood finds applications in construction for framing, flooring, and other purposes.
2. Key Products: Lumber, plywood, particleboard, engineered wood products.
3. Key Players: Weyerhaeuser, Georgia-Pacific, Canfor Corporation.

4. Glass and Ceramics:

1. Overview: Glass is used in windows and facades, while ceramics find applications in tiles and sanitaryware.
2. Key Products: Float glass, tempered glass, ceramic tiles, sanitaryware.
3. Key Players: Saint-Gobain, Asahi India, Mohawk Industries.

5. Bricks and Tiles:

1. Overview: Traditional and ceramic bricks, tiles, and masonry products.
2. Key Products: Clay bricks, ceramic tiles, concrete blocks.
3. Key Players: Wienerberger, Mohawk Industries, Hanson Building Products.

6. Insulation Materials:

1. Overview: Materials for thermal and acoustic insulation in buildings.
2. Key Products: Fiberglass insulation, foam board, mineral wool.
3. Key Players: Owens Corning, Rockwool, Knauf Insulation.

7. Paints and Coatings:

1. Overview: Products for safeguarding and enhancing surfaces in construction.
2. Key Products: Interior and exterior paints, coatings, primers.
3. Key Players: Sherwin-Williams, AkzoNobel, PPG Industries.

8. Adhesives and Sealants:

1. Overview: Products for bonding and sealing applications in construction.
2. Key Products: Construction adhesives, sealants, epoxy resins.
3. Key Players: Henkel, 3M, Sika.

9. Asphalt and Bitumen:

1. Overview: Asphalt for road construction and bitumen as a binding material.
2. Key Products: Asphalt concrete, bitumen emulsions.
3. Key Players: ExxonMobil, Royal Dutch Shell, Indian Oil Corporation.

10. Plumbing and Sanitaryware:

1. Overview: Products for plumbing systems and sanitary facilities.
2. Key Products: Faucets, pipes, bathroom fixtures.
3. Key Players: Kohler, American Standard, Roca.

11. Electrical Wiring and Cables:

1. Overview: Products for electrical installations in buildings.
2. Key Products: Electrical wiring, cables, conduits.
3. Key Players: Prysmian Group, Nexans, Polycab India.

12. Composite Materials:

1. Overview: Materials made from two or more constituent materials for enhanced properties.
2. Key Products: Fiberglass composites, carbon fiber composites.
3. Key Players: Owens Corning, Hexcel Corporation, Toray Industries.

Given Below is the overview of some of the key industries in Building Materials segment

A) Adhesives and Sealants

The post-pandemic surge in the construction market is driving an increased demand for adhesives and sealants, vital in bonding extensive surfaces and closing openings where traditional materials fall short. The Indian adhesive and sealant market, valued at Rs 10,100 crore in 2020, is projected to reach Rs 15,000 crore by 2025. Reports highlight heightened demand in packaging, furniture, and building & construction. The Indian adhesives and sealants market, estimated at over US\$1,100 million in 2021, foresees a CAGR exceeding 8% from 2022-2027. In terms of segmentation, the adhesives market is set to grow at an 8.5% CAGR, reaching Rs 13,300 crore by 2025, with acrylic and PVA-based adhesives dominating. The sealants market, anticipated to grow at a 7% CAGR, is expected to reach Rs 1,700 crore by 2025, with silicone and polyurethane-based sealants holding over 50% market share, primarily driven by the automotive and building & construction segments.

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Various sealants differ based on viscosity, with high viscosity ones remaining stationary upon application, while low viscosity types can penetrate substrates. Acrylic sealants, water-based and synthetic, are utilized for jointing and crack filling in home construction, preventing dust and insects. Flexible even post-paint, they exhibit rubber-like properties upon curing. Hybrid sealants combine urethane and silicone, offering improved adhesion without the need for an initial primer. Possessing high toughness and strength, they serve dual roles in bonding and sealing. Polyurethane sealants, flexible and UV-resistant, contribute to lightweight and durable products, particularly in high-efficiency insulation like rigid foam insulation. Silicone sealants, displaying properties of both metals and nonmetals, are versatile in building construction, resisting oils, salts, heat, alkalis, and acids, and are commonly used in repellent treatments for masonry and brickwork.

Waterproofing

The waterproofing solutions market, forecasted to reach \$42 billion by 2025, is gaining momentum in India due to rising government investments in infrastructure, especially in the Asia Pacific region. India's emphasis on major initiatives like Smart Cities, affordable housing, and industrial corridors has spurred construction activities, driving the need for effective waterproofing solutions. Additionally, the mining industry in India, which plays a vital role in the country's economy, is contributing to the increased adoption of waterproofing solutions.

Cement

The Indian cement industry, ranking second globally, has witnessed substantial growth since its inception in 1914. With advancements in technology, Indian cement plants are now highly efficient and environmentally friendly. The industry contributes to environmental cleanliness by utilizing hazardous wastes and employing eco-friendly technologies. Currently, India has a cement production capacity of 500 MTPA, with a per capita consumption of 195 kg, significantly lower than the global average. The industry operates through two primary manufacturing processes: wet and dry. The Perform Achieve and Trade (PAT) scheme has played a significant role in reducing specific energy consumption, with 75 designated consumers surpassing the targeted savings of 1.48 million MTOE. India's cement plants exhibit lower average specific thermal and electrical energy consumption compared to global benchmarks, positioning them as role models in the world cement industry. Key stakeholders are pivotal in fostering energy-efficient practices and addressing carbon reduction challenges for sustainable industry development.