

# Lightweight Construction Materials - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2024 - 2029)

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## Abstracts

The Lightweight Construction Materials Market size is estimated at USD 153.73 billion in 2024, and is expected to reach USD 186.81 billion by 2029, growing at a CAGR of 3.97% during the forecast period (2024-2029).

### Key Highlights

As the world's population becomes increasingly urbanized, there is a growing demand for high-rise buildings. Lightweight construction materials can be used to reduce the weight of these buildings, which can save on foundation costs and reduce the risk of earthquakes. For example, the North American urban population for 2022 was 308,798,139, a 0.77% increase from 2021.

The North American urban population for 2021 was 306,441,356, a 0.44% increase from 2020. The North American urban population for 2020 was 305,103,974, a 1.22% increase from 2019. Furthermore, in 2022, the degree of urbanization worldwide was at 57 percent. North America was the region with the highest level of urbanization, with over four-fifths of the population residing in urban areas.

Lightweight construction materials can help to improve the energy efficiency of buildings by reducing the amount of heat that is lost through the walls and roof. For instance, the value of investments in energy-efficient buildings in H1 2023 was higher in Europe than in any other region. Investments for that market in China amounted to USD 22 billion, which was somewhat lower than in the United States (USD 28 billion). These investments are necessary to reduce the environmental impact of buildings, as they were responsible for a significant share of global greenhouse gas emissions. These

materials can help to reduce the environmental impact of construction by using fewer raw materials and producing less waste.

Lightweight construction materials play a crucial role in the aerospace and defense sectors, enabling the development of highly efficient and durable structures for aircraft, spacecraft, and defense vehicles. These materials contribute to significant weight reduction, enhancing fuel efficiency, increasing payload capacity, and improving overall performance. Since 2013, a total of approximately USD 272 billion of equity investments have been made in space companies worldwide. United States space companies have accounted for almost 47 percent of the total investment, followed by China with 29 percent.

## Lightweight Construction Materials Market Trends

### Building & Construction segment Holds the prominent share of Global Market

The buildings and construction segment is a major driver of the lightweight construction materials market, accounting for a significant portion of global demand. Lightweight materials offer several advantages that make them particularly well-suited for construction applications, leading to their widespread adoption in this sector.

Lightweight construction materials significantly reduce the overall weight of a building, which has several benefits. It minimizes the load on foundations, leading to lower foundation costs and improved seismic resistance. Additionally, it reduces transportation expenses for building materials and enables the construction of taller and more slender structures.

According to industry sources, the revenue of the global construction industry is expected to grow steadily over the next years. In 2030, it is projected to be more than twice as big as it was in 2020. The size of the construction market amounted to USD 6.4 trillion in 2020, and it is expected to reach USD 14.4 trillion in 2030.

Lightweight materials offer greater design flexibility and enable the creation of unique architectural features. Their versatility allows architects and designers to experiment with different shapes, forms, and finishes, enhancing the aesthetic appeal of buildings. The prefabricated nature of many lightweight construction materials allows for faster assembly on-site, reducing construction time and labor costs. This is particularly beneficial for large-scale projects and in areas with limited skilled labor availability.

Lightweight materials often possess superior thermal insulation properties, helping to regulate indoor temperatures and reduce energy consumption. This is particularly important in buildings seeking to achieve energy efficiency certifications and meet environmental sustainability goals.

## Europe to Constitute Major Share of Global Lightweight Construction Materials Market

Europe is expected to hold a significant market share in the global lightweight construction materials market. European countries have implemented stringent energy efficiency regulations for buildings, driving the demand for lightweight construction materials that offer better thermal insulation and reduce energy consumption. Lightweight materials like cross-laminated timber (CLT), autoclaved aerated concrete (AAC), and expanded polystyrene (EPS) offer superior thermal insulation properties, reducing energy consumption and lowering carbon emissions.

Furthermore, Europe is a highly urbanized region with a growing population and increasing demand for new buildings and infrastructure. Lightweight materials play a crucial role in optimizing building designs, reducing construction time, and minimizing environmental impact. Europe has a well-established manufacturing base for lightweight construction materials, with leading producers like Germany, Austria, and Italy. This strong supply chain ensures the availability of high-quality materials at competitive prices.

The growth is being driven by several factors, including the increasing demand for energy-efficient buildings, the need to reduce the weight of construction materials to improve transportation efficiency, and the growing popularity of off-site construction methods. For example, CLT is being used to construct a new office building in London. CLT is a type of engineered wood that is made up of layers of timber that are glued together. It is a strong and lightweight material with fire-resistant properties.

Furthermore, AAC is used to construct schools in Germany. AAC is a type of lightweight concrete that is made by mixing cement, sand, lime, and water with air. It is a strong and insulating material with fire-resistant properties.

## Lightweight Construction Materials Industry Overview

The lightweight construction materials market is fragmented in nature, with a mix of global and regional players. The market is expected to grow during the forecast period due to several factors, such as urbanization, sustainability investments, and growing economies. The major players in this market are HeidelbergCement, Granite, Trinity, James Hardie, and Hanson.

Additional Benefits:

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