

# **Lightweight Aggregates Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented, By Type (Expanded Clay, Fly Ash, Pumice, Diatomite, Perlite), By End-User Industry (Building & Construction, Infrastructure), By Region, By Competition, 2020-2030F**

<https://marketpublishers.com/r/L5AEEF23C9BFEN.html>

Date: June 2025

Pages: 180

Price: US\$ 4,500.00 (Single User License)

ID: L5AEEF23C9BFEN

## **Abstracts**

### Market Overview

The Global Lightweight Aggregates Market was valued at USD 15.61 billion in 2024 and is projected to reach USD 19.05 billion by 2030, growing at a CAGR of 3.22% during the forecast period. Lightweight aggregates (LWAs) are low-density, high-porosity granular materials widely used in the construction sector to produce lightweight concrete and improve insulation and acoustic performance. These aggregates are derived from natural sources like pumice, volcanic ash, and shale or from industrial byproducts such as fly ash and blast furnace slag. The growing need for reducing structural load, enhancing energy efficiency, and improving thermal resistance in buildings and infrastructure has driven demand for LWAs globally. Construction applications including precast components, insulating roof decks, and masonry blocks benefit significantly from the use of LWAs due to their structural and environmental advantages. As sustainable construction practices gain traction, the lightweight aggregates market is witnessing increased adoption across residential, commercial, and civil infrastructure projects.

### Key Market Drivers

#### Rising Demand from the Construction Industry

The construction sector remains a key driver of the lightweight aggregates market, as these materials offer multiple performance and sustainability benefits. Lightweight aggregates such as expanded clay, shale, slate, and pumice are extensively used in concrete production to lower structural weight, improve thermal insulation, and enhance fire resistance. With accelerating urbanization and infrastructure development—particularly in emerging economies like India, China, and Indonesia—the need for high-efficiency and cost-effective construction materials is on the rise. The trend toward vertical construction and high-rise buildings further supports the use of LWAs, which help reduce dead load and improve structural integrity. Governments and developers alike are prioritizing materials that meet energy efficiency and sustainability standards, contributing to the growing adoption of lightweight aggregates.

## Key Market Challenges

### High Production Costs and Limited Raw Material Availability

The high production cost of lightweight aggregates poses a major constraint for the market. Manufacturing processes such as sintering, crushing, and thermal expansion are energy-intensive, particularly for synthetic aggregates like expanded clay and shale. In regions with high energy prices or regulatory constraints on emissions, these costs can be prohibitive. Moreover, suitable raw materials are not universally available—volcanic rocks such as pumice and perlite are geographically restricted, often necessitating long-distance transportation. These logistics add to the total cost and hinder adoption in cost-sensitive markets. Project developers in regions facing budget limitations may opt for traditional aggregates, limiting the penetration of lightweight alternatives despite their technical advantages.

## Key Market Trends

### Rising Demand for Lightweight and Sustainable Construction Materials

Sustainability and energy efficiency are driving a significant shift toward lightweight aggregates in modern construction. As green building standards such as LEED and BREEAM become more prevalent, demand for materials with lower environmental impact is increasing. LWAs contribute to sustainable construction by lowering dead loads, enhancing thermal insulation, and supporting resource conservation through the use of recycled byproducts like fly ash and slag. These aggregates also reduce the embodied energy of concrete and support better building performance over time. Rapid

urban growth in developing regions such as Southeast Asia and Latin America is pushing developers to adopt advanced construction materials that comply with evolving environmental norms. As a result, lightweight aggregates are becoming an integral part of green infrastructure and resilient building design.

### Key Market Players

Leca International (Saint-Gobain Group)

Boral Limited

Cemex S.A.B. de C.V.

Arcosa, Inc.

Charah Solutions, Inc.

Holcim Ltd.

CRH plc

Salt River Materials Group

Titan America LLC

Liapor GmbH & Co. KG

### Report Scope:

In this report, the Global Lightweight Aggregates Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

### Lightweight Aggregates Market, By Type:

Expanded Clay

Fly Ash

Pumice

Diatomite

Perlite

#### Lightweight Aggregates Market, By End-User Industry:

Building & Construction

Infrastructure

#### Lightweight Aggregates Market, By Region:

North America

United States

Canada

Mexico

Europe

France

United Kingdom

Italy

Germany

Spain

## Asia-Pacific

China

India

Japan

Australia

South Korea

## South America

Brazil

Argentina

Colombia

## Middle East & Africa

South Africa

Saudi Arabia

UAE

Kuwait

Turkey

## Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the Global Lightweight Aggregates Market.

## Available Customizations:

*Lightweight Aggregates Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented, By...*

Global Lightweight Aggregates Market report with the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

#### Company Information

Detailed analysis and profiling of additional market players (up to five).

## Contents

### **1. PRODUCT OVERVIEW**

- 1.1. Market Definition
- 1.2. Scope of the Market
  - 1.2.1. Markets Covered
  - 1.2.2. Years Considered for Study
- 1.3. Key Market Segmentations

### **2. RESEARCH METHODOLOGY**

- 2.1. Objective of the Study
- 2.2. Baseline Methodology
- 2.3. Formulation of the Scope
- 2.4. Assumptions and Limitations
- 2.5. Sources of Research
  - 2.5.1. Secondary Research
  - 2.5.2. Primary Research
- 2.6. Approach for the Market Study
  - 2.6.1. The Bottom-Up Approach
  - 2.6.2. The Top-Down Approach
- 2.7. Methodology Followed for Calculation of Market Size & Market Shares
- 2.8. Forecasting Methodology
  - 2.8.1. Data Triangulation & Validation

### **3. EXECUTIVE SUMMARY**

- 3.1. Overview of the Market
- 3.2. Overview of Key Market Segmentations
- 3.3. Overview of Key Market Players
- 3.4. Overview of Key Regions/Countries
- 3.5. Overview of Market Drivers, Challenges, and Trends

### **4. VOICE OF CUSTOMER**

### **5. GLOBAL LIGHTWEIGHT AGGREGATES MARKET OUTLOOK**

- 5.1. Market Size & Forecast

- 5.1.1. By Value
- 5.2. Market Share & Forecast
  - 5.2.1. By Type (Expanded Clay, Fly Ash, Pumice, Diatomite, Perlite)
  - 5.2.2. By End-User Industry (Building & Construction, Infrastructure)
  - 5.2.3. By Region
- 5.3. By Company (2024)
- 5.4. Market Map

## **6. NORTH AMERICA LIGHTWEIGHT AGGREGATES MARKET OUTLOOK**

- 6.1. Market Size & Forecast
  - 6.1.1. By Value
- 6.2. Market Share & Forecast
  - 6.2.1. By Type
  - 6.2.2. By End-User Industry
  - 6.2.3. By Country
- 6.3. North America: Country Analysis
  - 6.3.1. United States Lightweight Aggregates Market Outlook
    - 6.3.1.1. Market Size & Forecast
      - 6.3.1.1.1. By Value
    - 6.3.1.2. Market Share & Forecast
      - 6.3.1.2.1. By Type
      - 6.3.1.2.2. By End-User Industry
  - 6.3.2. Canada Lightweight Aggregates Market Outlook
    - 6.3.2.1. Market Size & Forecast
      - 6.3.2.1.1. By Value
    - 6.3.2.2. Market Share & Forecast
      - 6.3.2.2.1. By Type
      - 6.3.2.2.2. By End-User Industry
  - 6.3.3. Mexico Lightweight Aggregates Market Outlook
    - 6.3.3.1. Market Size & Forecast
      - 6.3.3.1.1. By Value
    - 6.3.3.2. Market Share & Forecast
      - 6.3.3.2.1. By Type
      - 6.3.3.2.2. By End-User Industry

## **7. EUROPE LIGHTWEIGHT AGGREGATES MARKET OUTLOOK**

- 7.1. Market Size & Forecast

- 7.1.1. By Value
- 7.2. Market Share & Forecast
  - 7.2.1. By Type
  - 7.2.2. By End-User Industry
  - 7.2.3. By Country
- 7.3. Europe: Country Analysis
  - 7.3.1. Germany Lightweight Aggregates Market Outlook
    - 7.3.1.1. Market Size & Forecast
      - 7.3.1.1.1. By Value
    - 7.3.1.2. Market Share & Forecast
      - 7.3.1.2.1. By Type
      - 7.3.1.2.2. By End-User Industry
  - 7.3.2. United Kingdom Lightweight Aggregates Market Outlook
    - 7.3.2.1. Market Size & Forecast
      - 7.3.2.1.1. By Value
    - 7.3.2.2. Market Share & Forecast
      - 7.3.2.2.1. By Type
      - 7.3.2.2.2. By End-User Industry
  - 7.3.3. Italy Lightweight Aggregates Market Outlook
    - 7.3.3.1. Market Size & Forecast
      - 7.3.3.1.1. By Value
    - 7.3.3.2. Market Share & Forecast
      - 7.3.3.2.1. By Type
      - 7.3.3.2.2. By End-User Industry
  - 7.3.4. France Lightweight Aggregates Market Outlook
    - 7.3.4.1. Market Size & Forecast
      - 7.3.4.1.1. By Value
    - 7.3.4.2. Market Share & Forecast
      - 7.3.4.2.1. By Type
      - 7.3.4.2.2. By End-User Industry
  - 7.3.5. Spain Lightweight Aggregates Market Outlook
    - 7.3.5.1. Market Size & Forecast
      - 7.3.5.1.1. By Value
    - 7.3.5.2. Market Share & Forecast
      - 7.3.5.2.1. By Type
      - 7.3.5.2.2. By End-User Industry

## **8. ASIA-PACIFIC LIGHTWEIGHT AGGREGATES MARKET OUTLOOK**

- 8.1. Market Size & Forecast
  - 8.1.1. By Value
- 8.2. Market Share & Forecast
  - 8.2.1. By Type
  - 8.2.2. By End-User Industry
  - 8.2.3. By Country
- 8.3. Asia-Pacific: Country Analysis
  - 8.3.1. China Lightweight Aggregates Market Outlook
    - 8.3.1.1. Market Size & Forecast
      - 8.3.1.1.1. By Value
    - 8.3.1.2. Market Share & Forecast
      - 8.3.1.2.1. By Type
      - 8.3.1.2.2. By End-User Industry
  - 8.3.2. India Lightweight Aggregates Market Outlook
    - 8.3.2.1. Market Size & Forecast
      - 8.3.2.1.1. By Value
    - 8.3.2.2. Market Share & Forecast
      - 8.3.2.2.1. By Type
      - 8.3.2.2.2. By End-User Industry
  - 8.3.3. Japan Lightweight Aggregates Market Outlook
    - 8.3.3.1. Market Size & Forecast
      - 8.3.3.1.1. By Value
    - 8.3.3.2. Market Share & Forecast
      - 8.3.3.2.1. By Type
      - 8.3.3.2.2. By End-User Industry
  - 8.3.4. South Korea Lightweight Aggregates Market Outlook
    - 8.3.4.1. Market Size & Forecast
      - 8.3.4.1.1. By Value
    - 8.3.4.2. Market Share & Forecast
      - 8.3.4.2.1. By Type
      - 8.3.4.2.2. By End-User Industry
  - 8.3.5. Australia Lightweight Aggregates Market Outlook
    - 8.3.5.1. Market Size & Forecast
      - 8.3.5.1.1. By Value
    - 8.3.5.2. Market Share & Forecast
      - 8.3.5.2.1. By Type
      - 8.3.5.2.2. By End-User Industry

## **9. SOUTH AMERICA LIGHTWEIGHT AGGREGATES MARKET OUTLOOK**

## 9.1. Market Size & Forecast

### 9.1.1. By Value

## 9.2. Market Share & Forecast

### 9.2.1. By Type

### 9.2.2. By End-User Industry

### 9.2.3. By Country

## 9.3. South America: Country Analysis

### 9.3.1. Brazil Lightweight Aggregates Market Outlook

#### 9.3.1.1. Market Size & Forecast

##### 9.3.1.1.1. By Value

#### 9.3.1.2. Market Share & Forecast

##### 9.3.1.2.1. By Type

##### 9.3.1.2.2. By End-User Industry

### 9.3.2. Argentina Lightweight Aggregates Market Outlook

#### 9.3.2.1. Market Size & Forecast

##### 9.3.2.1.1. By Value

#### 9.3.2.2. Market Share & Forecast

##### 9.3.2.2.1. By Type

##### 9.3.2.2.2. By End-User Industry

### 9.3.3. Colombia Lightweight Aggregates Market Outlook

#### 9.3.3.1. Market Size & Forecast

##### 9.3.3.1.1. By Value

#### 9.3.3.2. Market Share & Forecast

##### 9.3.3.2.1. By Type

##### 9.3.3.2.2. By End-User Industry

## **10. MIDDLE EAST AND AFRICA LIGHTWEIGHT AGGREGATES MARKET OUTLOOK**

### 10.1. Market Size & Forecast

#### 10.1.1. By Value

### 10.2. Market Share & Forecast

#### 10.2.1. By Type

#### 10.2.2. By End-User Industry

#### 10.2.3. By Country

### 10.3. Middle East and Africa: Country Analysis

#### 10.3.1. South Africa Lightweight Aggregates Market Outlook

##### 10.3.1.1. Market Size & Forecast

- 10.3.1.1.1. By Value
- 10.3.1.2. Market Share & Forecast
  - 10.3.1.2.1. By Type
  - 10.3.1.2.2. By End-User Industry
- 10.3.2. Saudi Arabia Lightweight Aggregates Market Outlook
  - 10.3.2.1. Market Size & Forecast
    - 10.3.2.1.1. By Value
  - 10.3.2.2. Market Share & Forecast
    - 10.3.2.2.1. By Type
    - 10.3.2.2.2. By End-User Industry
- 10.3.3. UAE Lightweight Aggregates Market Outlook
  - 10.3.3.1. Market Size & Forecast
    - 10.3.3.1.1. By Value
  - 10.3.3.2. Market Share & Forecast
    - 10.3.3.2.1. By Type
    - 10.3.3.2.2. By End-User Industry
- 10.3.4. Kuwait Lightweight Aggregates Market Outlook
  - 10.3.4.1. Market Size & Forecast
    - 10.3.4.1.1. By Value
  - 10.3.4.2. Market Share & Forecast
    - 10.3.4.2.1. By Type
    - 10.3.4.2.2. By End-User Industry
- 10.3.5. Turkey Lightweight Aggregates Market Outlook
  - 10.3.5.1. Market Size & Forecast
    - 10.3.5.1.1. By Value
  - 10.3.5.2. Market Share & Forecast
    - 10.3.5.2.1. By Type
    - 10.3.5.2.2. By End-User Industry

## **11. MARKET DYNAMICS**

- 11.1. Drivers
- 11.2. Challenges

## **12. MARKET TRENDS & DEVELOPMENTS**

- 12.1. Merger & Acquisition (If Any)
- 12.2. Product Launches (If Any)
- 12.3. Recent Developments

## **13. COMPANY PROFILES**

### 13.1. Leca International (Saint-Gobain Group)

- 13.1.1. Business Overview
- 13.1.2. Key Revenue and Financials
- 13.1.3. Recent Developments
- 13.1.4. Key Personnel/Key Contact Person
- 13.1.5. Key Product/Services Offered

### 13.2. Boral Limited

### 13.3. Cemex S.A.B. de C.V.

### 13.4. Arcosa, Inc.

### 13.5. Charah Solutions, Inc.

### 13.6. Holcim Ltd.

### 13.7. CRH plc

### 13.8. Salt River Materials Group

### 13.9. Titan America LLC

### 13.10. Liapor GmbH & Co. KG

## **14. STRATEGIC RECOMMENDATIONS**

## **15. ABOUT US & DISCLAIMER**

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