

Green Cement Market Report by Product Type (Fly Ash-Based, Slag-Based, Limestone-Based, Silica Fume-Based, and Others), End-Use Industry (Residential, Non-Residential, Infrastructure), and Region 2024-2032

<https://marketpublishers.com/r/GD9FD20E5B7FEN.html>

Date: January 2024

Pages: 145

Price: US\$ 3,899.00 (Single User License)

ID: GD9FD20E5B7FEN

Abstracts

The global green cement market size reached US\$ 34.9 Billion in 2023. Looking forward, IMARC Group expects the market to reach US\$ 89.7 Billion by 2032, exhibiting a growth rate (CAGR) of 10.7% during 2024-2032. The increasing environmental regulations and sustainability goals, growing awareness of carbon emissions in traditional cement production, and rising investments in infrastructure development and construction projects are some of the major factors propelling the market.

Green cement, also known as sustainable or eco-friendly cement, is an advanced construction material designed to minimize the environmental impact associated with traditional cement production. Unlike conventional Portland cement, green cement incorporates innovative technologies and processes that reduce carbon emissions and energy consumption. It often utilizes industrial by-products like fly ash, slag, or limestone as partial substitutes for clinker, the primary ingredient in traditional cement. Green cement aims to mitigate carbon dioxide emissions while maintaining the structural integrity and performance characteristics required for construction projects.

The escalating awareness of climate change, coupled with the urgent need to reduce carbon footprints that prompted governments, industries, and consumers to seek environmentally responsible construction materials, represents the primary factor driving the market growth. Moreover, the implementation of stringent regulations on carbon emissions in the building sector has accelerated the adoption of green cement solutions, as they offer lower carbon intensity compared to traditional cement. Apart

from this, the increasing demand for sustainable infrastructure and LEED-certified buildings that necessitates the use of construction materials that align with green building standards is propelling the market growth. Furthermore, numerous advancements in research and technology, including the development of innovative cement formulations using alternative materials and energy-efficient manufacturing processes, are contributing to market growth. Along with this, the rising collaborations between governments, private sectors, and academia that facilitates the creation of supportive frameworks and funding mechanisms, is another major growth-inducing factor.

Green Cement Market Trends/Drivers:

Rising emphasis on environmental sustainability

The increasing global emphasis on environmental sustainability and the urgent need to curb carbon emissions have positioned green cement as a pivotal solution in the construction industry. As governments, industries, and individuals across the globe strive to mitigate climate change, the demand for construction materials with lower carbon footprints has grown significantly. Green cement addresses this imperative by utilizing innovative manufacturing processes and alternative materials that reduce the carbon intensity associated with traditional cement production, thereby accelerating its adoption rate. This alignment with sustainability goals appeals to environmentally conscious consumers and positions green cement as a key player in promoting greener construction practices.

Implementation of stringent regulations and standards

The stringent environmental regulations and green building certifications enforced worldwide have reshaped the global construction landscape, compelling industry stakeholders to embrace green cement as a means of compliance. With governments implementing stricter carbon reduction targets and building codes emphasizing sustainability, green cement's lower carbon footprint and reduced environmental impact offer a compelling solution. Construction projects seeking LEED, BREEAM, or other green certifications are increasingly turning to green cement to meet the criteria for sustainable building materials. This supportive regulatory environment has created a strong market driver for green cement, prompting manufacturers and suppliers to adapt and innovate to cater to the evolving demands of a more environmentally conscious construction sector.

Rapid technological advancements

Continuous advancements of materials science and cement production technologies have revolutionized the green cement landscape. Researchers and engineers are actively exploring innovative ways to substitute traditional cement clinker with supplementary cementitious materials, industrial by-products, and alternative binders that require lower energy inputs and emit fewer greenhouse gases during manufacturing. These technological breakthroughs have led to the development of green cement formulations that offer comparable or improved performance characteristics while reducing carbon emissions, thereby accelerating the product adoption rate. This progress addresses environmental concerns as well as appeals to construction professionals and project owners seeking efficient and sustainable building solutions.

Green Cement Industry Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global green cement market report, along with forecasts at the global and regional levels for 2024-2032. Our report has categorized the market based on product type and end-use industry.

Breakup by Product Type:

Fly Ash-Based

Slag-Based

Limestone-Based

Silica Fume-Based

Others

Fly ash-based represents the most popular product type

The report has provided a detailed breakup and analysis of the market based on the product type. This includes fly ash-based, slag-based, limestone-based, silica fume-based, and others. According to the report, fly ash-based represented the largest segment.

Fly ash-based green cement is gaining immense traction across the globe due to its dual advantage of utilizing a waste by-product and reducing carbon emissions. By incorporating fly ash, the residue from coal-fired power plants into cement formulations, clinker content is reduced, lowering the overall carbon footprint of cement production. This addresses environmental concerns by curbing CO2 emissions associated with

traditional cement manufacturing.

Moreover, fly ash-based green cement offers comparable or improved performance properties, making it a viable and sustainable alternative for construction projects. As governments and industries prioritize carbon reduction and sustainable building practices, the adoption of fly ash-based green cement aligns with these goals, thus contributing to market growth. Furthermore, the rising promotion of circular economy principles, where waste materials are repurposed, has accelerated the product adoption rate.

Breakup by End-Use Industry:

Residential
Non-Residential
Infrastructure

Residential accounts for the majority of the share in the market

A detailed breakup and analysis of the market based on the end-use industry has also been provided in the report. This includes residential, non-residential, and infrastructure. According to the report, residential accounted for the largest market share.

The residential sector is witnessing a substantial rise in construction activities and increasing emphasis on sustainable building practices. As homeowners and developers prioritize energy-efficient and environmentally friendly homes, the demand for green cement in residential construction rises. Green cement's reduced carbon footprint aligns with eco-conscious consumer preferences and green building certifications.

Additionally, government incentives and regulations promoting energy-efficient housing stimulate the adoption of green cement, as it contributes to lower embodied carbon in buildings. The residential sector's rising inclination toward greener materials, coupled with the growing awareness about the long-term benefits of sustainable construction, positions green cement as a preferred choice. The reduced carbon footprint of green cement resonates with environmentally conscious homeowners and aligns with green building certifications.

Breakup by Region:

North America

Europe

Asia Pacific

Middle East and Africa

Latin America

North America exhibits a clear dominance in the market

The market research report has also provided a comprehensive analysis of all the major regional markets, which include North America, Europe, Asia Pacific, Latin America, and the Middle East and Africa. According to the report, North America accounted for the largest market share.

North America held the biggest share in the market due to its combination of regulatory support, growing sustainability consciousness, and robust construction industry. Stringent environmental regulations and government initiatives that prioritize reduced carbon emissions and sustainable building practices incentivize the adoption of green cement. The heightening environmental awareness in the region and the rising demand for LEED-certified buildings drives the preference for eco-friendly construction materials.

Additionally, the significant growth in the construction sector across the region provides ample opportunities for integrating green cement in various projects. Furthermore, rising collaborations between industry stakeholders and research institutions in North America are fostering innovation in green cement technologies, contributing to its market growth. The region's commitment to sustainable practices and the pursuit of environmentally responsible infrastructure has accelerated the adoption of green cement, thereby propelling market growth.

Competitive Landscape:

Key players in the market are driving innovation through cutting-edge technologies and novel approaches. These innovations encompass the utilization of carbon capture and utilization (CCU) techniques to incorporate captured carbon dioxide into cement production, thereby reducing emissions and enhancing the environmental profile of cement. Additionally, the exploration of novel binders, such as geopolymers and alkali-activated materials, is gaining traction, offering cement alternatives with reduced clinker content and improved sustainability. The integration of artificial intelligence (AI) and data analytics in the production process is optimizing resource utilization and minimizing waste. These advancements underscore the commitment of these industry players to propel the green cement market forward, aligning with sustainability goals and responding to the augmenting demand for environmentally friendly construction

materials.

The report has provided a comprehensive analysis of the competitive landscape in the market. Detailed profiles of all major companies have also been provided. Some of the key players in the market include:

CarbonCure Technologies Inc.
CEMEX S.A.B. de C.V.
CRH plc
LafargeHolcim Ltd.
Fortera Corporation
Heidelberg Cement AG
Siam Cement Public Company (SCG)
Kiran Global Chem Limited
CeraTech
Taiheiyo Cement Corporation
Anhui Conch Cement Company Limited
Votorantim Cimentos S.A.
UltraTech Cement Ltd.
ACC Ltd.

Recent Developments:

In July 2021, Holcim, a leading global cement company, introduced ECOPlanet, an innovative line of green cement aimed at significantly reducing carbon footprints while maintaining performance excellence. With a remarkable reduction of at least 30% in carbon emissions, ECOPlanet offers a sustainable alternative for construction projects. This revolutionary green cement is currently accessible in several countries including Romania, Germany, Switzerland, Canada, France, Spain, and Italy, with plans to expand its distribution to encompass 15 countries by the end of 2021.

In March 2021, Taiheiyo Cement Corporation announced the establishment of a new production line at Taiheiyo Cement Philippines. This progressive initiative is set to commence in April 2021, reflecting the company's commitment to enhancing their production capabilities and contributing to the construction materials sector. The new production line signifies Taiheiyo Cement's dedication to meeting the growing demand for cement while adhering to the highest standards of quality and sustainability.

In January 2023, ACC Limited introduced 'ACC ECOMaxX', marking a significant stride in sustainable construction with its range of green concrete solutions. Leveraging Unique Green Ready Mix Technology, these products showcase the company's commitment to environmental responsibility. This breakthrough aligns with ACC

Limited's dedication to providing construction materials that meet performance expectations and also contribute to a greener future. By introducing this eco-friendly concrete range, ACC Limited demonstrates its proactive role in addressing carbon emissions and advancing sustainable practices within the construction industry.

Key Questions Answered in This Report

1. What was the size of the global green cement market in 2023?
2. What is the expected growth rate of the global green cement market during 2024-2032?
3. What are the key factors driving the global green cement market?
4. What has been the impact of COVID-19 on the global green cement market?
5. What is the breakup of the global green cement market based on the product type?
6. What is the breakup of the global green cement market based on the end-use industry?
7. What are the key regions in the global green cement market?
8. Who are the key players/companies in the global green cement market?

Contents

1 PREFACE

2 SCOPE AND METHODOLOGY

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
 - 2.3.1 Primary Sources
 - 2.3.2 Secondary Sources
- 2.4 Market Estimation
 - 2.4.1 Bottom-Up Approach
 - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

3 EXECUTIVE SUMMARY

4 INTRODUCTION

- 4.1 Overview
- 4.2 Key Industry Trends

5 GLOBAL GREEN CEMENT MARKET

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Breakup by Product Type
- 5.5 Market Breakup by End-Use Industry
- 5.6 Market Breakup by Region
- 5.7 Market Forecast

6 MARKET BREAKUP BY PRODUCT TYPE

- 6.1 Fly Ash-Based
 - 6.1.1 Market Trends

- 6.1.2 Market Forecast
- 6.2 Slag-Based
 - 6.2.1 Market Trends
 - 6.2.2 Market Forecast
- 6.3 Limestone-Based
 - 6.3.1 Market Trends
 - 6.3.2 Market Forecast
- 6.4 Silica Fume-Based
 - 6.4.1 Market Trends
 - 6.4.2 Market Forecast
- 6.5 Others
 - 6.5.1 Market Trends
 - 6.5.2 Market Forecast

7 MARKET BREAKUP BY END-USE INDUSTRY

- 7.1 Residential
 - 7.1.1 Market Trends
 - 7.1.2 Market Forecast
- 7.2 Non-Residential
 - 7.2.1 Market Trends
 - 7.2.2 Market Forecast
- 7.3 Infrastructure
 - 7.3.1 Market Trends
 - 7.3.2 Market Forecast

8 MARKET BREAKUP BY REGION

- 8.1 North America
 - 8.1.1 Market Trends
 - 8.1.2 Market Forecast
- 8.2 Europe
 - 8.2.1 Market Trends
 - 8.2.2 Market Forecast
- 8.3 Asia Pacific
 - 8.3.1 Market Trends
 - 8.3.2 Market Forecast
- 8.4 Middle East and Africa
 - 8.4.1 Market Trends

8.4.2 Market Forecast

8.5 Latin America

8.5.1 Market Trends

8.5.2 Market Forecast

9 SWOT ANALYSIS

9.1 Overview

9.2 Strengths

9.3 Weaknesses

9.4 Opportunities

9.5 Threats

10 VALUE CHAIN ANALYSIS

11 PORTERS FIVE FORCES ANALYSIS

11.1 Overview

11.2 Bargaining Power of Buyers

11.3 Bargaining Power of Suppliers

11.4 Degree of Competition

11.5 Threat of New Entrants

11.6 Threat of Substitutes

12 PRICE ANALYSIS

12.1 Price Indicators

12.2 Price Structure

12.3 Margin Analysis

13 COMPETITIVE LANDSCAPE

13.1 Market Structure

13.2 Key Players

13.3 Profiles of Key Players

13.3.1 CarbonCure Technologies Inc.

13.3.2 CEMEX S.A.B. de C.V.

13.3.3 CRH plc

- 13.3.4 LafargeHolcim
- 13.3.5 Fortera Corporation
- 13.3.6 Heidelberg Cement
- 13.3.7 Siam Cement Public Company (SCG)
- 13.3.8 Kiran Global Chem Limited
- 13.3.9 CeraTech
- 13.3.10 Taiheiyo Cement Corporation
- 13.3.11 Anhui Conch Cement
- 13.3.12 Votorantim cimentos S.A.
- 13.3.13 UltraTech Cement Ltd.
- 13.3.14 ACC Ltd.

List Of Tables

LIST OF TABLES

Table 1: Global: Green Cement Market: Key Industry Highlights, 2023 and 2032

Table 2: Global: Green Cement Market Forecast: Breakup by Product Type (in Million US\$), 2024-2032

Table 3: Global: Green Cement Market Forecast: Breakup by End-Use Industry (in Million US\$), 2024-2032

Table 4: Global: Green Cement Market Forecast: Breakup by Region (in Million US\$), 2024-2032

Table 5: Global: Green Cement Market Structure

Table 6: Global: Green Cement Market: Key Players

List Of Figures

LIST OF FIGURES

Figure 1: Global: Green Cement Market: Major Drivers and Challenges

Figure 2: Global: Green Cement Market: Sales Value (in Billion US\$), 2018-2023

Figure 3: Global: Green Cement Market: Breakup by Product Type (in %), 2023

Figure 4: Global: Green Cement Market: Breakup by End-Use Industry (in %), 2023

Figure 5: Global: Green Cement Market: Breakup by Region (in %), 2023

Figure 6: Global: Green Cement Market Forecast: Sales Value (in Billion US\$), 2024-2032

Figure 7: Global: Green Cement Industry: SWOT Analysis

Figure 8: Global: Green Cement Industry: Value Chain Analysis

Figure 9: Global: Green Cement Industry: Porter's Five Forces Analysis

Figure 10: Global: Green Cement (Fly Ash-Based) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 11: Global: Green Cement (Fly Ash-Based) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 12: Global: Green Cement (Slag-Based) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 13: Global: Green Cement (Slag-Based) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 14: Global: Green Cement (Limestone-Based) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 15: Global: Green Cement (Limestone-Based) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 16: Global: Green Cement (Silica Fume-Based) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 17: Global: Green Cement (Silica Fume-Based) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 18: Global: Green Cement (Other Product Types) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 19: Global: Green Cement (Other Product Types) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 20: Global: Green Cement (Residential) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 21: Global: Green Cement (Residential) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 22: Global: Green Cement (Non-Residential) Market: Sales Value (in Million

US\$), 2018 & 2023

Figure 23: Global: Green Cement (Non-Residential) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 24: Global: Green Cement (Infrastructure) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 25: Global: Green Cement (Infrastructure) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 26: North America: Green Cement Market: Sales Value (in Million US\$), 2018 & 2023

Figure 27: North America: Green Cement Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 28: Europe: Green Cement Market: Sales Value (in Million US\$), 2018 & 2023

Figure 29: Europe: Green Cement Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 30: Asia Pacific: Green Cement Market: Sales Value (in Million US\$), 2018 & 2023

Figure 31: Asia Pacific: Green Cement Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 32: Middle East and Africa: Green Cement Market: Sales Value (in Million US\$), 2018 & 2023

Figure 33: Middle East and Africa: Green Cement Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 34: Latin America: Green Cement Market: Sales Value (in Million US\$), 2018 & 2023

Figure 35: Latin America: Green Cement Market Forecast: Sales Value (in Million US\$), 2024-2032

I would like to order

Product name: Green Cement Market Report by Product Type (Fly Ash-Based, Slag-Based, Limestone-Based, Silica Fume-Based, and Others), End-Use Industry (Residential, Non-Residential, Infrastructure), and Region 2024-2032

Product link: <https://marketpublishers.com/r/GD9FD20E5B7FEN.html>

Price: US\$ 3,899.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/GD9FD20E5B7FEN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below

and fax the completed form to +44 20 7900 3970