ANMD-MRS2-011 · Advanced Building Materials

Low-Carbon Cement

A Global Sustainability Due Diligence & Market Research Study

History 2020–2024 · Base Year 2025 · Forecast 2025–2032 · Outlooks 2035 / 2040 / 2050 · Currency US$

WHY THIS REPORT

Low-carbon cement cuts the embodied carbon of the built environment's most-used material, turning decarbonisation pressure and green-building codes into a compliance-and-premium opportunity. This decision-grade study sizes the global market three ways — value, tonnes and installed capacity (Mt) — across product type, technology and application, across seven regions and four scenarios to 2032, with outlooks to 2050.

SUSTAINABILITY & SDG IMPACT — THE ANMD LENS

Sustainability is this report's backbone, not an afterthought. Beyond performance, low-carbon cement delivers measurable embodied-carbon reduction, energy savings and clinker-factor cuts, while SCM reuse and reduced quarrying strengthen the natural-capital story.

Mapped Sustainable Development Goals:

SDG 9	SDG 11	SDG 12	SDG 13
Industry & Innovation	Sustainable Cities	Responsible Consumption	Climate Action

Measurable sustainability outcomes assessed:

- Embodied-carbon reduction and clinker-factor cuts
- Energy savings across the production process
- Supplementary cementitious material (SCM) reuse and reduced quarrying
- Raw-material sourcing and supply-chain ESG as material risks

Framework alignment: Double materiality mapped to GRI, SASB, ISSB, TCFD, TNFD, CSRD and the EU Taxonomy, with greenwashing and SDG-washing screens applied throughout.

WHAT'S INSIDE AT A GLANCE

53 Chapters	9 Report Parts	7 Regions Covered	40+ Country Markets
2025–32 Forecast Horizon	4 Forward Scenarios	25+ Companies Profiled	4 SDGs Mapped

REPORT COVERAGE

Geographic scope: North America, Europe, Asia Pacific, Latin America, Africa, Middle East and Rest of World — with named country intelligence. Asia Pacific is the volume leader (China, India, Japan) on cement demand and the decarbonisation push; Europe leads on codes and standards; other regions assessed on their own merits.

MARKET OVERVIEW

From early adoption to mainstream scale — where decarbonisation rules meet the built environment's most-used material.

The low-carbon cement market is moving from early adoption to mainstream commercial scale. Demand is driven by building decarbonisation converging with embodied-carbon rules and green-building codes, supported by maturing incentives across Asia Pacific, Europe and North America. The market is read three ways — value, tonnes and installed capacity (Mt) — and forecast under four scenarios, each region reported separately.

- Asia Pacific is the volume leader — China, India and Japan, on vast cement demand and the decarbonisation push
- Europe leads on embodied-carbon codes, standards and the green-premium market
- Whole-life carbon is the differentiator — lower embodied carbon plus durability and compliance, increasingly with green-premium value
- North America accelerates on procurement rules and low-carbon-concrete specification

REGIONAL OUTLOOK

Across seven reporting regions, the report separates early commercialisation leaders from high-growth and emerging markets — each profiled in full rather than aggregated into Rest of World.

Region	Stage	Lead Markets & Drivers
Asia Pacific	Volume leader	China, India, Japan — cement demand, decarbonisation push
Europe	Standards leader	Germany, France, UK, Nordics — embodied-carbon codes, green premium
North America	Accelerating	United States, Canada — low-carbon procurement, specification
Latin America	Emerging	Brazil, Mexico — cement demand, blended cements
Africa	Frontier	Nigeria, Egypt, South Africa — construction growth, local SCMs
Middle East	Frontier	Saudi Arabia, UAE — mega-projects, green-building codes

KEY MARKET DRIVERS & RESTRAINTS

Drivers	Restraints
• Building-decarbonisation + embodied-carbon-rule convergence • Clinker-factor cuts & energy savings • Green-building codes & low-carbon procurement • Durability, compliance & green-premium economics • SCM, calcined-clay (LC3) & novel-chemistry technology gains	• Standards, certification & specification acceptance • SCM availability & supply-chain constraints • Performance-equivalence & durability proof • Energy, raw-material & logistics cost inflation • Specifier adoption, financing & code-update lag

SEGMENTATION SNAPSHOT

By Product Type	Blended cement · SCM-based · calcined-clay (LC3) · novel low-carbon chemistries
By Technology	Clinker substitution · alternative fuels · carbon capture · novel binders
By Application	Structural concrete · precast · mortar & render · infrastructure
By End User	Builders · developers · contractors · specifiers · infrastructure owners
By SCM Source	Fly ash · slag · calcined clay · natural pozzolans
By Scale	Project · regional · national supply

TABLE OF CONTENTS — PARTS & CHAPTERS

The full report is organised into nine parts across 53 chapters, listed below. Detailed sub-headings, country tables and directories are provided in the full report.

Part V — Company, Competition, Patent and Project Intelligence

Part VI — Sustainability, ESG, SDG, Climate and Natural-Capital Intelligence

Part VII — Supply Chain, Policy, Legal, Economics and Finance

Part VIII — Scenario, Future Intelligence and Final Due Diligence Verdict

Part IX — Annexes, Directories and Reference Material

COMPETITIVE & INVESTMENT SNAPSHOT

The competitive field spans specialist low-carbon-cement producers, established materials majors, and regional manufacturers. Deal activity — capacity investment, technology licensing and demonstration projects — signals a market consolidating around bankable, scalable production.

Representative players profiled in the full report:

Holcim Ltd · Heidelberg Materials AG · Cemex S.A.B. de C.V. · CRH plc · UltraTech Cement Ltd. · and 20+ further profiled players across producers, technology licensors and SCM suppliers.

Investment intelligence: venture, infrastructure, development, climate and blended finance, green bonds and sustainability-linked loans — culminating in a bankability assessment and a Go / No-Go / Conditional-Go investment verdict.

KEY QUESTIONS THIS REPORT ANSWERS

- ? How large is the global low-carbon cement market, and how fast will it grow to 2032?
- ? Which regions, countries and segments offer the strongest risk-adjusted opportunity?
- ? How does whole-life carbon change value versus conventional materials?
- ? Who leads, and where is the competitive and patent white space?
- ? Is the investment case bankable — and under what conditions?
- ? How does the material align with the SDGs, green-building codes and disclosure regulation?

WHY ANMD — THE DIFFERENCE

Most market studies stop at units and revenue. This report is built as a sustainability due diligence instrument — fusing market sizing with ESG, SDG, climate, water and natural-capital intelligence and a decision-ready bankability verdict in a single architecture.

- › Triangulated sizing — every market read three ways so value, volume and area views reconcile rather than conflict.
- › Region-honest forecasting — Latin America, Africa and the Middle East reported in full, never hidden inside Rest of World, every forecast resolved to the 2025 base year.
- › Integrated evidence base — company, patent and project databases linked to the analysis, with published-filing patents and FTO treated as an indicator, not a legal conclusion.
- › No-fabrication discipline — every estimate carries a data-confidence rating and disclosed sources; gaps are flagged for further diligence, never filled with invented numbers.
- › Anti-greenwashing rigour — SDG-washing and greenwashing screens plus claim-substantiation checks built into the ESG and project analysis.
- › Decision-first structure — 9 Parts and 53 Chapters culminating in stakeholder playbooks and a clear Go / No-Go / Conditional-Go investment verdict.

WHO SHOULD BUY THIS REPORT

Investors and infrastructure / PE funds, material producers and manufacturers, builders, developers and contractors, architects and specifiers, green-building certifiers, policymakers, and corporate strategy and ESG teams.

Access the Full Report

The complete report delivers all 53 chapters in full, with every sub-heading, country table, company and patent directory, forecast model and due diligence checklist.

Purchase at **www.anewmarketdynamics.com** · Standard & Premium licences · Single-Site (SSL) and Global-Site (GSL) options at checkout.

Want the Complete Detailed Table of Contents?

This prospectus lists the nine parts and 53 chapters. The complete detailed table of contents — every sub-heading, country table, exhibit, company and patent directory and annex — is available on request to registered users. To receive it, register with your official company email at **www.anewmarketdynamics.com**. The full detailed table of contents will be sent directly to your registered company email address.