

## **Zeolites - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)**

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### **Report description:**

Zeolites Market Analysis

The Zeolites Market size is estimated at USD 9.56 billion in 2025, and is expected to reach USD 11.60 billion by 2030, at a CAGR of 3.94% during the forecast period (2025-2030). Robust demand from water treatment, petrochemical catalysis, and next-generation membrane technologies underpins steady growth. Asia-Pacific leads the global zeolite market as tightening environmental rules spur catalyst and adsorbent uptake. Water treatment is the most dynamic end-use, on the back of stricter heavy-metal discharge limits, while petrochemical applications retain the largest slice due to their entrenched role in fluid catalytic cracking.

Global Zeolites Market Trends and Insights

Increasing Demand from Water Treatment Industry

Heightened concern over heavy-metal and emerging contaminant discharge drives utilities to adopt high-capacity zeolite adsorbents. Graphene-oxide-modified zeolites now remove up to 119 mg g<sup>-1</sup> of methylene blue at 333 K, outstripping conventional media. Acid-treated clinoptilolite achieves 94% Pb<sup>2+</sup>, 86% Cd<sup>2+</sup>, and 84% As<sup>3+</sup> removal, positioning natural zeolites as cost-effective substitutes for activated carbon in municipal systems. In parallel, utilities in Europe and Asia are piloting zeolite-packed columns to meet upcoming chromium and manganese limits, underpinning multi-year growth for the zeolite market.

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## Increasing Use of Zeolite as Refrigeration Adsorbents

Adsorption chillers based on zeolite-water pairs cut electricity use and eliminate high-GWP refrigerants. Zeolites' microporous framework adsorbs water vapor at low partial pressure, enabling cooling with waste heat streams around 60 C. Innovations such as 40% better heat-transfer coatings shorten cycle time and lift system COP, bringing commercial adoption closer in off-grid cold-chain and data-center cooling. These advances bolster medium-term demand and expand the zeolite market into energy-efficiency niches.

## Abundant Availability of Low-Cost Silica Gel and Activated Carbon Adsorbents Reducing Zeolite Uptake in Industrial Drying

Silica gel undercuts zeolite pricing by 30-40%, steering commodity drying customers toward cheaper media. Performance advantages of zeolites, higher capacity under humid atmospheres and regenerability above 200 C, often remain undervalued, delaying conversions in bulk chemicals and grain storage. Producers counter by launching hybrid blends that lower upfront cost while showcasing lifecycle savings, yet market education remains a near-term hurdle.

Other drivers and restraints analyzed in the detailed report include:

Growth of Petrochemical Capacity Additions in China and Middle East Elevating Demand for FCC Catalysts Based on Y-Zeolite / Growing Demand in Catalysis / Volatility in Aluminosilicate Feedstock Costs Due to Bauxite Mining Restrictions /

For complete list of drivers and restraints, kindly check the Table Of Contents.

## Segment Analysis

Natural zeolites commanded 55% of the market in 2024 thanks to vast deposits of clinoptilolite, chabazite, and mordenite that require only crushing and sizing before use. These minerals support agriculture, livestock, and bulk adsorption, giving them a durable cost edge over synthetics. Acid-modified clinoptilolite now removes 94% Pb<sup>2+</sup> and 84% As<sup>3+</sup>, narrowing the performance gap with engineered frameworks.

Synthetic zeolites will post a 5.60% CAGR. Precision control of Si/Al ratio and pore topology enables high activity in FCC, hydrocracking, and NO<sub>x</sub> reduction. The zeolite market size for synthetic Y-type catalysts alone is projected to expand with rising heavy-oil processing. Suppliers devote significant research and development to dual-framework designs that unlock higher light-olefin yields, sustaining premium pricing and margin resilience.

Powders retained 60% revenue in 2024, underpinning detergent, catalyst slurry, and master-batch applications. Their high external surface area guarantees rapid adsorption and easy dispersion. Stable demand from laundry builders and FCC catalysts anchors this segment of the zeolite market.

Membrane/coating formats, while still niche, will rise 6.11% annually. Seamless, defect-free zeolite layers on ceramic or metal substrates now deliver molecular sieving for hydrogen purification and ethanol dehydration. Breakthroughs in secondary growth techniques produce sub-100 nm oriented ZSM-5 films, slashing permeance loss. Several European pilot installations target post-combustion CO<sub>2</sub> capture, hinting at sizeable upside for this advanced form factor within the broader zeolite market.

The Zeolite Market Report Segments the Industry by Product Type (Natural Zeolite and Synthetic Zeolites), Form (Powder, Granules/Pellets, and More), Application (Adsorbents, Catalysts, and More), End-User Industry (Water Treatment, Air Purification, Agriculture, and More), and Geography (Asia-Pacific, North America, Europe, South America, and Middle-East and Africa). The Market Forecasts are Provided in Terms of Value (USD).

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## Geography Analysis

Asia-Pacific held 45% of global sales in 2024, reflecting unrivaled petrochemical expansion, rapid urbanization, and stringent regional emission directives. China's 14th Five-Year Plan backs local catalyst innovation, ensuring secure supply for propylene-rich crackers and driving steady demand across the zeolite market. Parallel policies mandating low-NOx combustion and advanced wastewater plants catalyze broader uptake.

Europe prioritizes environmental performance, pushing automakers to adopt Cu-CHA catalysts and refiners to install desulfurization adsorbers that rely on zeolite frameworks. The European Green Deal's circular-economy measures, including mandatory waste-oil re-refining targets of up to 85% by 2030, elevate future adsorbent requirements.

North America maintains robust consumption through its established refinery network and rising adoption of zeolite-based SCR and GHG-to-chemicals catalysts. Domestic sourcing initiatives encourage capacity additions for high-silica frameworks, reinforcing supply security for specialty applications and supporting the zeolite market's steady North American footprint.

The Middle-East leverages abundant crude to build integrated complexes targeting higher-value olefins and aromatics. GCC investments in residue-upgrading hinge on zeolite catalysts able to tolerate sulfur and metals, ensuring consistent order flow. Africa and South America remain emerging but promising; Brazilian projects tackling groundwater contamination via clinoptilolite beds exemplify localized water treatment growth. Collectively, these regions add incremental volume that reinforces global zeolite market expansion.

### List of Companies Covered in this Report:

BASF / Albemarle Corporation / Arkema / Blue Pacific Minerals / Clariant / GCMIL / Honeywell International Inc. / Huiying Chemical Industry (Quanzhou) Co. / International Zeolite Corp. / Interra Global / KNT Group / NINGBO JIAHE NEW MATERIALS TECHNOLOGY CO.,LTD / PQ / Resonac Holdings Corporation / St. Cloud Mining / TOSOH CORPORATION / W. R. Grace & Co / Zeochem / Zeolyst International / Zeotech /

### Additional Benefits:

The market estimate (ME) sheet in Excel format /  
3 months of analyst support /

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