

Global Markets and Technologies for Smart Glass

Market Research Report | 2025-01-07 | 129 pages | BCC Research

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Report description:

Description

Report Scope:

The scope of this in-depth report on the global market for smart glass includes only the categories of switchable glass that change tint when exposed to external stimuli such as light and heat. The scope excludes smart glasses integrated with technology and generally identified in the category of smart wearable technology. The base year of the analysis is 2023, with 2024 to 2029 serving as the forecast period. The market is segmented by:

- Type: Active and passive.
- Technologies: Electrochromic, suspended particle devices, polymer dispersed liquid crystal, micro blinds, photochromic glass, thermochromic glass, and others (nanocrystals and digital images).
- End user: Automotive and aircraft, construction, electronics, power generation plants, and others (consumer products and medical devices).

Report Includes:

- 61 data tables and 56 additional tables
- Analyses of trends in the global market for smart glass, with sales data for 2023, estimates for 2024, and projections of compound annual growth rates (CAGRs) through 2029
- Estimates and forecasts of the market for smart glass by type, technology, end-use industry, and region
- Review of patent data and new developments regarding smart glass
- A discussion of the ESG challenges and practices of the industry
- Assessment of the competitive landscape, including the market shares of leading companies, their product portfolios and financial overviews

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- Information on recent mergers and acquisitions, expansions, collaborations, investments, divestments and product launches
- Profiles of the market leaders, including Corning Inc., AGC Inc., FG Glass, Saint-Gobain and Halio Inc.

Executive Summary

Summary:

Smart glass, also known as switchable glass, is a type of chromogenic material that can change its optical properties to become opaque or tinted in response to electrical or thermal signals by blocking some or all wavelengths of light from passing through the glass surface. The report includes an analysis of active and passive types of smart glass and how they respond to external stimuli and their level of interaction with the environment.

The global market for smart glass has recorded positive growth during the past years and is expected to grow at an increased pace in the forecast period through 2029. Active smart glass requires an external energy source (e.g., electricity) to change its properties, while passive smart glass does not. Passive smart glass relies on inherent properties of the materials or coatings used, such as photochromic or thermochromic properties, that allow it to respond to external stimuli without requiring electricity. The market has a dominant position on active smart glass because of its wide applications and flexible properties.

The market has continued to expand as a result of the growth of its primary end-use industries (automotive and construction). In addition, technological advances and supportive government intervention play a key role in boosting the overall market growth over the forecast period. The automotive, aerospace and construction industries accounted for a combined 85.7% of the share of the total smart glass market in terms of applications.

Regionally, this report shows that Europe accounted for the highest market share, followed by North America and Asia-Pacific. The European market is gaining interest in smart glass, due to strict government regulations related to energy-efficient buildings and easy technological integration with existing or new infrastructure at the consumers' end.

The competitive landscape of the smart glass industry shows that the market is concentrated with a few companies holding a significant market share in flat glass. Well-established companies are leading the market because of long-term R&D investments and a strong hold on the supply chain. In the smart glass industry, regulatory compliance also plays a key role. The application of smart glass in public and government institutions requires that companies cater to regulatory requirements related to such technologies as digital security and high-grade privacy glass. Therefore, companies are required to abide by quality standards fixed by government institutions.

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FG GLASS
FUYAO GROUP
GENTEX CORP.
GUARDIAN INDUSTRIES HOLDINGS
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JAIPUR TUFFEN GLASS INDUSTRIES PVT. LTD.
LTI SMART GLASS INC.
NIPPON SHEET GLASS CO. LTD.
PRIVETEK
SPD CONTROL SYSTEMS CORP.
SAINT-GOBAIN
SMART GLASS
SMARTGLASS INTERNATIONAL
Other Players

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