

# **Smart Glass Market Size, Share & Trends Analysis Report By Technology (Electrochromic, SPD, PDLC, Thermochemicals), By Application (Transportation, Power Generation), By Region, And Segment Forecasts, 2022 - 2030**

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## **Abstracts**

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### **Smart Glass Market Growth & Trends**

The global smart glass market size is expected to reach USD 12.76 billion by 2030, according to a new report by Grand View Research, Inc. It is expected to expand at a CAGR of over 10.3% from 2022 to 2030. This can be attributed to the growing demand across the transportation and architectural sectors. The emerging trend of deploying innovative technologies in new buildings has instigated the adoption of smart glass products in the architectural sector

The latest glass solutions provide on-demand privacy in the form of smart glass or dynamic glazing. These glasses help transform the overall indoor experience by offering an outside view while maintaining environmental sustainability. This has drastically increased the demand for smart glass in hospitals, restaurants, and other commercial buildings. Besides, the growing interest in renovating residential buildings to make them more energy efficient is also providing lucrative opportunities for glass manufacturers. Quoting instance, in April 2021, Halio Inc. inked a deal with Marvin to introduce smart glass to the residential construction sector.

Smart glasses are available in a wide variety such as electrochromic, SPD, PDLC, etc. Among these, the PDLC segment is expected to witness considerable growth during the

forecast timeline. The growth can be credited to the operational feasibility offered by this technology which facilitates optical translucency and a fast response time. In addition to this, it offers ultra-fast switching speed, low haze, and low power consumption, which is playing a key role in instigating the product application in windows and partition walls. The other factors such as high stability for heat, UV, and moisture, long lifetime, and low driving voltage are also driving the demand for PDLC smart glass.

Elaborating on applications, smart glass technology is finding extensive scope in power generation. In 2021, researchers in China designed photovoltachromic device-based smart solar window technology that allows high pristine transmittance and is self-adaptable for controlling indoor temperature and brightness. Photovoltachromic devices have the potential to enable adjustable transparency glazing while generating electricity using the PV effect. Such ongoing technological developments are positively influencing the overall market statistics.

The global market is highly competitive, with the major players making rigorous attempts to deliver enhanced offerings differentiated by quality or service. As smart glass is relatively more expensive than its legacy counterpart, it is important to ensure a good value proposition to gain a competitive edge. For instance, smart glass manufacturers are inclined on introducing augmented reality concepts to provide a distinguished user experience. In July 2021, Corning Inc. signed a partnership agreement with Hyundai Mobis under which the former will offer Corning Curved Mirror Solutions that will be used as the vital component in the latter's Augmented Reality Head-Up Display system.

### Smart Glass Market Report Highlights

The establishment of stringent regulatory norms such as the Building Energy Conservation Act and the green building initiative by the European Union is anticipated to drive market growth during the forecast period

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The latest trend of incorporating panoramic roof panels and large sunroofs in luxury cars is expected to stimulate smart glass demand in transportation applications

Being an untapped market with ample growth opportunities for the market players, Asia Pacific is projected to record the highest CAGR of around 12.0% through the forecast period

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