

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

<https://marketpublishers.com/r/S0B7D37C004EN.html>

Date: July 2022

Pages: 171

Price: US\$ 4,950.00 (Single User License)

ID: S0B7D37C004EN

Abstracts

This report can be delivered to the clients within 1 Business Day

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

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

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

Contents

CHAPTER 1. METHODOLOGY AND SCOPE

- 1.1. Market Segmentation & Scope
- 1.2. Market Definitions
- 1.3. Information Procurement
 - 1.3.1. Purchased database
 - 1.3.2. GVR's internal database
 - 1.3.3. Secondary sources & third party perspective
 - 1.3.4. Primary research
- 1.4. Information Analysis
 - 1.4.1. Data analysis models
- 1.5. Market Formulation and Data Visualization
- 1.6. Data Validation and Publishing

CHAPTER 2. EXECUTIVE SUMMARY

- 2.1. Market Outlook
- 2.2. Segmental Outlook

CHAPTER 3. INDUSTRY OUTLOOK

- 3.1. Market Introduction
- 3.2. Market Size and Growth Prospects, 2018 - 2030
 - 3.2.1. Smart glass - New buildings/houses vs. replacement market
- 3.3. Smart Glass- Value Chain Analysis
 - 3.3.1. Process and Equipment Used for Glass Lamination
 - 3.3.2. Smart Glass Production Process
 - 3.3.2.1. Installation of the switchable layer
 - 3.3.2.2. Comparative analysis of vacuum lamination furnace
- 3.4. Market Dynamics
 - 3.4.1. Market driver analysis
 - 3.4.1.1. Surging demand for smart glass-based products
 - 3.4.1.2. High adoption in the transportation sector
 - 3.4.1.3. Favorable administrative initiatives for green building proposals
 - 3.4.2. Market restraint/challenge analysis
 - 3.4.2.1. High acquisition cost of smart glass solutions
 - 3.4.2.2. Lack of awareness

- 3.4.2.3. Lack of patents and adequate technical expertise
- 3.4.3. Penetration & Growth Prospect Mapping
- 3.5. Business Environment Analysis Tools
 - 3.5.1. Porter's Five Forces Analysis
 - 3.5.2. PEST Analysis
- 3.6. Pricing Analysis
 - 3.6.1. Price point comparison by technology - Liquid crystal vs. SPD vs. electrochromic
 - 3.6.2. Price point comparison by application
- 3.7. COVID-19 Impact on Smart Glass Market
- 3.8. Impact of Russia-Ukraine War on Smart Glass Market
- 3.9. Liquid Crystal Smart Glass Technology Landscape
 - 3.9.1. Competitive analysis by technology - SPD vs. liquid crystal vs. electrochromic
 - 3.9.2. Liquid crystal smart glass patent scenario
 - 3.9.2.1. Reworkable liquid crystal film manufacturing method
 - 3.9.3. Smart Glass
 - 3.9.4. Nano Smart Glass
 - 3.9.5. Smart Glass Touch Display Input Device
 - 3.9.6. Smart Photochromic Chiral Nematic Liquid Crystal Window

CHAPTER 4. TECHNOLOGY ESTIMATES & TREND ANALYSIS

- 4.1. Market Size Estimates & Forecasts and Trend Analysis, 2018 - 2030
- 4.2. Technology Movement Analysis & Market Share, 2021 & 2030
 - 4.2.1. Electrochromic
 - 4.2.1.1. Market size estimates and forecasts, 2018 - 2030 (USD Million)
 - 4.2.2. Polymer Dispersed Liquid Crystal (PDLC)
 - 4.2.2.1. Market size estimates and forecasts, 2018 - 2030 (USD Million)
 - 4.2.3. Suspended Particle Devices (SPD)
 - 4.2.3.1. Market size estimates and forecasts, 2018 - 2030 (USD Million)
 - 4.2.4. Thermochromics
 - 4.2.4.1. Market size estimates and forecasts, 2018 - 2030 (USD Million)
 - 4.2.5. Photochromic
 - 4.2.5.1. Market size estimates and forecasts, 2018 - 2030 (USD Million)

CHAPTER 5. APPLICATION ESTIMATES & TREND ANALYSIS

- 5.1. Market Size Estimates & Forecasts and Trend Analysis, 2018 - 2030
- 5.2. Application Movement Analysis & Market Share, 2021 & 2030
 - 5.2.1. Architectural

- 5.2.1.1. Market size estimates and forecasts, 2018 - 2030 (USD Million)
- 5.2.2. Transportation
 - 5.2.2.1. Market size estimates and forecasts, 2018 - 2030 (USD Million)
 - 5.2.2.2. Automotive
 - 5.2.2.2.1. Market size estimates and forecasts, 2018 - 2030 (USD Million)
 - 5.2.2.3. Aircraft
 - 5.2.2.3.1. Market size estimates and forecasts, 2018 - 2030 (USD Million)
 - 5.2.2.4. Marine
 - 5.2.2.4.1. Market size estimates and forecasts, 2018 - 2030 (USD Million)
- 5.2.3. Consumer Electronics
 - 5.2.3.1. Market size estimates and forecasts, 2018 - 2030 (USD Million)
- 5.2.4. Power Generation
 - 5.2.4.1. Market size estimates and forecasts, 2018 - 2030 (USD Million)

CHAPTER 6. REGIONAL ESTIMATES & TREND ANALYSIS

- 6.1. Market Size Estimates & Forecasts, 2018 - 2030
- 6.2. Regional Movement Analysis & Market Share, 2021 & 2030
- 6.3. North America
 - 6.3.1. Market size estimates and forecasts by technology, 2018 - 2030 (USD Million)
 - 6.3.2. Market size estimates and forecasts by application, 2018 - 2030 (USD Million)
 - 6.3.3. Market size estimates and forecasts by transportation application, 2018 - 2030 (USD Million)
 - 6.3.4. U.S.
 - 6.3.4.1. Market size estimates and forecasts by technology, 2018 - 2030 (USD Million)
 - 6.3.4.2. Market size estimates and forecasts by application, 2018 - 2030 (USD Million)
 - 6.3.4.3. Market size estimates and forecasts by transportation application, 2018 - 2030 (USD Million)
 - 6.3.5. Canada
 - 6.3.5.1. Market size estimates and forecasts by technology, 2018 - 2030 (USD Million)
 - 6.3.5.2. Market size estimates and forecasts by application, 2018 - 2030 (USD Million)
 - 6.3.5.3. Market size estimates and forecasts by transportation application, 2018 - 2030 (USD Million)
- 6.4. Europe
 - 6.4.1. Market size estimates and forecasts by technology, 2018 - 2030 (USD Million)

6.4.2. Market size estimates and forecasts by application, 2018 - 2030 (USD Million)

6.4.3. Market size estimates and forecasts by transportation application 2018 - 2030 (USD Million)

6.4.4. Germany

6.4.4.1. Market size estimates and forecasts by technology, 2018 - 2030 (USD Million)

6.4.4.2. Market size estimates and forecasts by application, 2018 - 2030 (USD Million)

6.4.4.3. Market size estimates and forecasts by transportation application, 2018 - 2030 (USD Million)

6.4.5. U.K.

6.4.5.1. Market size estimates and forecasts by technology, 2018 - 2030 (USD Million)

6.4.5.2. Market size estimates and forecasts by application, 2018 - 2030 (USD Million)

6.4.5.3. Market size estimates and forecasts by transportation application 2018 - 2030 (USD Million)

6.5. Asia Pacific

6.5.1. Market size estimates and forecasts by technology, 2018 - 2030 (USD Million)

6.5.2. Market size estimates and forecasts by application, 2018 - 2030 (USD Million)

6.5.3. Market size estimates and forecasts by transportation application, 2018 - 2030 (USD Million)

6.5.4. China

6.5.4.1. Market size estimates and forecasts by technology, 2018 - 2030 (USD Million)

6.5.4.2. Market size estimates and forecasts by application, 2018 - 2030 (USD Million)

6.5.4.3. Market size estimates and forecasts by transportation application, 2018 - 2030 (USD Million)

6.5.5. Japan

6.5.5.1. Market size estimates and forecasts by technology, 2018 - 2030 (USD Million)

6.5.5.2. Market size estimates and forecasts by application, 2018 - 2030 (USD Million)

6.5.5.3. Market size estimates and forecasts by transportation application, 2018 - 2030 (USD Million)

6.6. Latin America

6.6.1. Market size estimates and forecasts by solution, 2018 - 2030 (USD Million)

6.6.2. Market size estimates and forecasts by application, 2018 - 2030 (USD Million)

6.6.3. Market size estimates and forecasts by transportation application, 2018 - 2030 (USD Million)

6.6.4. Brazil

6.6.4.1. Market size estimates and forecasts by technology, 2018 - 2030 (USD Million)

6.6.4.2. Market size estimates and forecasts by application, 2018 - 2030 (USD Million)

6.6.4.3. Market size estimates and forecasts by transportation application, 2018 - 2030 (USD Million)

6.6.5. Mexico

6.6.5.1. Market size estimates and forecasts by technology, 2018 - 2030 (USD Million)

6.6.5.2. Market size estimates and forecasts by application, 2018 - 2030 (USD Million)

6.6.5.3. Market size estimates and forecasts by transportation application, 2018 - 2030 (USD Million)

6.7. The Middle East & Africa (MEA)

6.7.1. Market size estimates and forecasts by technology, 2018 - 2030 (USD Million)

6.7.2. Market size estimates and forecasts by application, 2018 - 2030 (USD Million)

6.7.3. Market size estimates and forecasts by transportation application 2018 - 2030 (USD Million)

CHAPTER 7. COMPETITIVE ANALYSIS

7.1. Smart Glass Technology Application in Consumer Electronics

7.1.1. Company: Digilens Inc

7.1.2. Company: Corning Incorporated

7.1.3. Company: Huawei Technologies Co., Ltd.

7.1.4. Company: Oppo

7.1.5. Company: Meta

7.2. Key Global Players, Strategic Initiatives, and Impact Analysis

7.2.1. Company: Agc Inc.

7.2.2. Company: Agc Inc.

7.2.3. Company: Corning Incorporated

7.2.4. Company: Chromogenic

7.3. Company Categorization

7.4. Key Company Analysis, 2021

CHAPTER 8. COMPETITIVE LANDSCAPE

8.1. AGC Inc.

- 8.1.1. Company overview
- 8.1.2. Financial performance
- 8.1.3. Product benchmarking
- 8.1.4. Recent developments

8.2. ChromoGenics

- 8.2.1. Company overview
- 8.2.2. Financial performance
- 8.2.3. Product benchmarking
- 8.2.4. Recent developments

8.3. Corning Incorporated

- 8.3.1. Company overview
- 8.3.2. Financial performance
- 8.3.3. Product benchmarking
- 8.3.4. Recent developments

8.4. Gauzy Ltd.

- 8.4.1. Company overview
- 8.4.2. Product benchmarking
- 8.4.3. Recent developments

8.5. Gentex Corporation

- 8.5.1. Company overview
- 8.5.2. Financial performance
- 8.5.3. Product benchmarking
- 8.5.4. Recent developments

8.6. Guardian Industries

- 8.6.1. Company overview
- 8.6.2. Product benchmarking
- 8.6.3. Recent developments

8.7. Halio Inc. (formerly known as Kinestral Technologies, Inc.)

- 8.7.1. Company overview
- 8.7.2. Product benchmarking
- 8.7.3. Recent developments

8.8. Nippon Sheet Glass Co., Ltd.

- 8.8.1. Company overview
- 8.8.2. Financial performance
- 8.8.3. Product benchmarking
- 8.8.4. Recent developments

8.9. PPG Industries, Inc.

- 8.9.1. Company overview
- 8.9.2. Financial performance
- 8.9.3. Product benchmarking
- 8.9.4. Recent developments
- 8.10. RavenWindow
 - 8.10.1. Company overview
 - 8.10.2. Product benchmarking
 - 8.10.3. Recent developments
- 8.11. Research Frontiers Inc.
 - 8.11.1. Company overview
 - 8.11.2. Financial performance
 - 8.11.3. Product benchmarking
 - 8.11.4. Recent developments
- 8.12. Saint-Gobain S.A.
 - 8.12.1. Company overview
 - 8.12.2. Financial performance
 - 8.12.3. Product benchmarking
 - 8.12.4. Recent developments
- 8.13. Showa Denko Materials Co., Ltd. (Hitachi Chemical Co. Ltd.)
 - 8.13.1. Company overview
 - 8.13.2. Financial performance
 - 8.13.3. Product benchmarking
 - 8.13.4. Recent developments
- 8.14. Smartglass International Limited
 - 8.14.1. Company overview
 - 8.14.2. Product benchmarking
 - 8.14.3. Recent developments
- 8.15. VELUX Group
 - 8.15.1. Company overview
 - 8.15.2. Product benchmarking
 - 8.15.3. Recent developments
- 8.16. View, Inc.
 - 8.16.1. Company overview
 - 8.16.2. Product benchmarking
 - 8.16.3. Recent developments
- 8.17. Vision Systems
 - 8.17.1. Company overview
 - 8.17.2. Product benchmarking
 - 8.17.3. Recent developments

List Of Tables

LIST OF TABLES

- Table 1 Smart Glass market estimates & forecasts, 2018 - 2030 (USD Million)
- Table 2 Smart Glass market estimates and forecasts by region, 2018 - 2030 (USD Million)
- Table 3 Smart Glass market estimates and forecasts by technology, 2018 - 2030 (USD Million)
- Table 4 Smart Glass market estimates and forecasts by application, 2018 - 2030 (USD Million)
- Table 5 Smart Glass market estimates and forecasts by transportation application, 2018 - 2030 (USD Million)
- Table 6 Raw material suppliers
- Table 7 Smart glass manufacturers
- Table 8 List of manufacturers providing equipment used in smart glass production
- Table 9 Comparative analysis of vacuum lamination furnaces
- Table 10 Pricing comparison
- Table 11 Pricing comparison by application
- Table 12 Liquid crystal pricing comparison by glass & film
- Table 13 SPD vs. liquid crystal vs. electrochromic technology
- Table 14 Competitive analysis by technology
- Table 15 Global electrochromic smart glass market by region, 2018 - 2030 (USD Million)
- Table 16 Global liquid crystal smart glass market by region, 2018 - 2030 (USD Million)
- Table 17 Global SPD smart glass market by region, 2018 - 2030 (USD Million)
- Table 18 Global thermochromic smart glass market by region, 2018 - 2030 (USD Million)
- Table 19 Global photochromic smart glass market by region, 2018 - 2030 (USD Million)
- Table 20 Global smart glass market in architectural application by region, 2018 - 2030 (USD Million)
- Table 21 Global smart glass market in transportation application by region, 2018 - 2030 (USD Million)
- Table 22 Global smart glass market in automotive application by region, 2018 - 2030 (USD Million)
- Table 23 Global smart glass market in aircraft application by region, 2018 - 2030 (USD Million)
- Table 24 Global smart glass market in marine application by region, 2018 - 2030 (USD Million)

Table 25 Global smart glass market in consumer electronics application by region, 2018 - 2030 (USD Million)

Table 26 Global smart glass market in power generation application by region, 2018 - 2030 (USD Million)

Table 27 North America smart glass market by technology, 2018 - 2030 (USD Million)

Table 28 North America smart glass market by application, 2018 - 2030 (USD Million)

Table 29 North America smart glass market by transportation application, 2018 - 2030 (USD Million)

Table 30 U.S. smart glass market by technology, 2018 - 2030 (USD Million)

Table 31 U.S. smart glass market by application, 2018 - 2030 (USD Million)

Table 32 U.S. smart glass market by transportation application, 2018 - 2030 (USD Million)

Table 33 Canada smart glass market by technology, 2018 - 2030 (USD Million)

Table 34 Canada smart glass market by application, 2018 - 2030 (USD Million)

Table 35 Canada smart glass market by transportation application, 2018 - 2030 (USD Million)

Table 36 Europe smart glass market by technology, 2018 - 2030 (USD Million)

Table 37 Europe smart glass market by application, 2018 - 2030 (USD Million)

Table 38 Europe smart glass market by transportation application, 2018 - 2030 (USD Million)

Table 39 U.K. smart glass market by technology, 2018 - 2030 (USD Million)

Table 40 U.K. smart glass market by application, 2018 - 2030 (USD Million)

Table 41 U.K. smart glass market by transportation application, 2018 - 2030 (USD Million)

Table 42 Germany smart glass market by technology, 2018 - 2030 (USD Million)

Table 43 Germany smart glass market by application, 2018 - 2030 (USD Million)

Table 44 Germany smart Glass market by transportation application, 2018 - 2030 (USD Million)

Table 45 Asia Pacific smart glass market by technology, 2018 - 2030 (USD Million)

Table 46 Asia Pacific smart glass market by application, 2018 - 2030 (USD Million)

Table 47 Asia Pacific smart glass market by transportation application, 2018 - 2030 (USD Million)

Table 48 China smart glass market by technology, 2018 - 2030 (USD Million)

Table 49 China smart glass market by application, 2018 - 2030 (USD Million)

Table 50 China smart glass market by transportation application, 2018 - 2030 (USD Million)

Table 51 Japan smart glass market by technology, 2018 - 2030 (USD Million)

Table 52 Japan smart glass market by application, 2018 - 2030 (USD Million)

Table 53 Japan smart glass market by transportation application, 2018 - 2030 (USD Million)

Million)

Table 54 Latin America smart glass market by technology, 2018 - 2030 (USD Million)

Table 55 Latin America smart glass market by application, 2018 - 2030 (USD Million)

Table 56 Latin America smart glass market by transportation application, 2018 - 2030 (USD Million)

Table 57 Brazil smart glass market by technology, 2018 - 2030 (USD Million)

Table 58 Brazil smart glass market by application, 2018 - 2030 (USD Million)

Table 59 Brazil smart glass market by transportation application, 2018 - 2030 (USD Million)

Table 60 Mexico smart glass market by technology, 2018 - 2030 (USD Million)

Table 61 Mexico smart glass market by application, 2018 - 2030 (USD Million)

Table 62 Mexico smart glass market by transportation application, 2018 - 2030 (USD Million)

Table 63 MEA smart glass market by technology, 2018 - 2030 (USD Million)

Table 64 MEA smart glass market by application, 2018 - 2030 (USD Million)

Table 65 MEA smart glass market by transportation application, 2018 - 2030 (USD Million)

List Of Figures

LIST OF FIGURES

- Fig. 1 Smart Glass market segmentation
- Fig. 2 Information procurement
- Fig. 3 Primary research pattern
- Fig. 4 Primary research process
- Fig. 6 Market outlook
- Fig. 7 Market size and growth prospects (USD Million)
- Fig. 8 Smart glass - Value chain analysis
- Fig. 9 Partial cross-sectional view of an Insulated Glass Unit (IGU)
- Fig. 10 Market dynamics
- Fig. 11 Penetration & growth prospect mapping
- Fig. 12 Porter's five forces analysis
- Fig. 13 PEST analysis
- Fig. 14 Smart glass market technology outlook key takeaways
- Fig. 15 Smart glass market: Technology movement analysis
- Fig. 16 Global electrochromic smart glass market, 2018 - 2030 (USD Million)
- Fig. 17 Global liquid crystal smart glass market, 2018 - 2030 (USD Million)
- Fig. 18 Global SPD smart glass market, 2018 - 2030 (USD Million)
- Fig. 19 Global thermochromic smart glass market, 2018 - 2030 (USD Million)
- Fig. 20 Global photochromic smart glass market, 2018 - 2030 (USD Million)
- Fig. 21 Smart glass market application outlook key takeaways
- Fig. 22 Smart glass market: Application movement analysis
- Fig. 23 Global smart glass market in architectural application, 2018 - 2030 (USD Million)
- Fig. 24 Global smart glass market in transportation application, 2018 - 2030 (USD Million)
- Fig. 25 Global smart glass market in consumer electronics application, 2018 - 2030 (USD Million)
- Fig. 26 Global smart glass market in power generation application, 2018 - 2030 (USD Million)
- Fig. 27 Regional marketplace: key takeaways
- Fig. 28 Regional outlook, 2021 & 2030
- Fig. 29 North America smart glass market, 2021 & 2030 (USD Billion)
- Fig. 30 Europe smart glass market, 2021 & 2030 (USD Billion)
- Fig. 31 Asia Pacific smart glass market, 2021 & 2030 (USD Billion)
- Fig. 32 Latin America smart glass market, 2021 & 2030 (USD Million)
- Fig. 33 MEA smart glass market, 2021 & 2030 (USD Million)

I would like to order

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

Product link: <https://marketpublishers.com/r/S0B7D37C004EN.html>

Price: US\$ 4,950.00 (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/S0B7D37C004EN.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