

## Report Information

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# Smart Glass Market Research Report - Global Forecast till 2027

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## Description:

### Global Smart Glass Market Overview

Smart Glass Market Size was valued at USD 6.5 billion in 2022. The Smart Glass market is projected to grow from USD 7.3996 Billion in 2023 to USD 16.10562438 billion by 2030, exhibiting a compound annual growth rate (CAGR) of 13.84% during the forecast period (2023 - 2030). The growing Energy-saving capacity of smart glass in developing nations and the increasing importance of smart glass in the healthcare industry are the key market driver enhancing market growth.

Smart Glass Market Overview

Source Secondary Research, Primary Research, MRFR Database and Analyst Review

### Smart Glass Market Trends

- Growth of the industrialization of Energy-saving capacity in developing nations to boost the market growth

Despite historically high energy prices and growing worries about energy security, the world's demand for energy keeps rising. To balance the supply and demand of energy, it is essential to improve the energy efficiency of households, businesses, schools, government buildings, and enterprises. Building lighting, heating, and cooling collectively account for 25% of the nation's overall energy costs, according to the US Department of Energy (DOE). The DOE estimates that smart glass can save energy use by about 40%. Equipment for heating, cooling, and lighting uses much energy, increasing the entire cost of any industry.

The glass used in a room's windows, doors, and walls significantly impacts how much energy the space uses. Along with impacting energy expenses, the heat and light transmitted through the glass directly affect the room's occupants' comfort. Using smart windows significantly reduces overall energy use. Smart glass is used to install smart windows, which control how much light passes through them based on the time of day. These windows may flip between translucent and transparent states without much electricity. Global warming, climate change, and their effects on the earth are all becoming recognized by the general public. The epidemic has also highlighted the importance of green construction and the advantages of living in a sustainable environment.

Governments and international organizations are working towards sustainability, and green buildings are significant in attaining a carbon-neutral society. The European Commission has set a goal to make Europe a climate-neutral continent by 2050 as part of the EU Green Deal, concentrating on sustainable building and energy efficiency. Commercial office buildings and corporate headquarters are where smart glass technology is most commonly used because it helps to save costs while increasing workplace efficiency significantly. In the approaching years, self-cleaning, low-emissivity, and solar control glasses are projected to emerge as popular options for the building industry. The growth of the architectural sector is greatly influenced by the rising number of infrastructure projects and restoration and renovation operations in residential and commercial areas.

### Smart Glass Market Segment Insights

#### Smart Glass Technology Insights

Based on technology, the Smart Glass Market segmentation includes electrochromic technology, PDLC, SPD, and photochromic technology. The electrochromic technology segment held the majority share in 2022 concerning the Smart Glass Market revenue. In 2021, electrochromic technology had the biggest market share, accounting for 49%. Due to growing investments in this technology and electrochromic glass's quicker transition from clear to dark states, this technology has a larger market share.

The advantages electrochromic technology provides in a sustainable building design are principally responsible for its rising popularity. Most of the leading producers of smart glass are concentrating on R&D to lower the cost without sacrificing quality and create economies of scale. Manufacturers can now produce in large quantities and achieve economies of scale thanks to several funding and investment initiatives in the sector. Because of the high degree of customization offered by electrochromic and SPD technologies and the sharp price decline, smart glass is anticipated to experience enormous demand in the future.

#### **Figure1 Smart Glass Market, by Technology, 2022 & 2030 (USD Billion)**

##### **Smart Glass Market, by Technology, 2022 & 2030**

**Source Secondary Research, Primary Research, MRFR Database and Analyst Review**

#### **Smart Glass Application Insights**

Based on application, the Smart glass market data is segmented into architectural and construction, Transportation, Automotive, Aircraft, Marine, Consumer goods, and Power generation. In the present era, the architectural and construction industry has prioritized the design and actions to bring a structure into compliance with green building regulations. The comfort, aesthetics, interior design, and eco-friendliness of a residential or commercial building all play a significant role in its marketability. Smart glass provides increased aesthetics and energy efficiency for architectural applications. Smart glass can be used in buildings' doors, walls, windows, skylights, and elevators. Products made of smart glass have intrinsic qualities that support market expansion. The smart glass's glare reduction feature reduces unwelcome glare from sunlight and can create bright, clear, and tailored lighting levels inside the structure. Smart glass is also utilized to regulate the temperature in structures. Smart glass's ability to self-clean provides users with a better experience at a minimal maintenance cost.

The UV-blocking ability of smart glass products also contributes to preserving a healthy environment in buildings. Consequently, smart glass maintains sanitary and healthy surroundings and offers tailored lighting and heating experiences. Using smart glass in various architectural applications boosts a building's aesthetic value and greatly lowers the costs associated with heating, cooling, and lighting. Thus, growth in the total market is anticipated in the upcoming years and positively impacts the market growth.

#### **Smart Glass Regional Insights**

By Region, the study provides market insights into North America, Europe, Asia-Pacific and the Rest of the World. The Asia Pacific Smart Glass Market accounted for USD 2.97 billion in 2022 and is expected to exhibit a significant CAGR growth during the study period. The market for smart glasses is anticipated to expand creatively in the Asia Pacific region. This results from the elements relating to applications in UV protection for people and fading of furniture and textiles. Additional uses include smart eyewear and the most recent building initiatives, which are advantageous for the area. Because of the obvious usage of SPD in the most recent Mercedes-Benz car models, there is potential in the consumer electronics and transportation sectors in these areas.

Further, the major countries studied in the market report are the U.S., Canada, Germany, France, the UK, Italy, Spain, China, Japan, India, Australia, South Korea, and Brazil.

#### **Figure 3 SMART GLASS MARKET SHARE BY REGION 2022 (%)**

##### **SMART GLASS MARKET SHARE BY REGION 2022**

**Source Secondary Research, Primary Research, MRFR Database and Analyst Review**

North America's Smart Glass market accounts for the second-largest market share. Since North America offers exceptional growth potential in the transportation sector, the area is expected to have the greatest CAGR of approximately 12.0% through 2030. Growing demand for luxury cars and rising disposable income encourage regional market growth. Also, it is predicted that increasing energy conservation awareness in the area will encourage using energy-efficient air conditioners and windows. Further, the US Smart Glass market held the largest market share, and Canada's Smart Glass market was the fastest-growing market in the North American region.

Europe's Smart Glass market is expected to grow at the fastest CAGR from 2023 to 2030. The economy's recovery and technological breakthroughs are the primary drivers of growth. The demand for energy-efficient products is likely to be sparked by the rapidly rising cost of electricity. Smart glass is projected to find more uses in Europe due to its capacity to lower a building's overall energy consumption while providing alluring features like on-demand privacy or glare control. Further, the German Smart Glass market held the largest market share, and the UK Smart Glass market was the fastest-growing market in the European region.

#### **Smart Glass Key Market Players & Competitive Insights**

Major market players are spending much on R&D to increase their product lines, which will help the Smart Glass Market grow even more. Market participants are also taking various strategic initiatives to grow their worldwide footprint, with key market developments such as new product launches, contractual agreements, mergers and acquisitions, increased investments, and collaboration with other organizations. Competitors in the Smart Glass industry must offer cost-effective items to expand and survive in an increasingly competitive and rising market environment.

The leading market players strongly emphasize creating innovative offerings to serve a big consumer base and obtain a competitive edge. For example, the Gentex Corporation is always

improving and inventing its dimmable automotive mirrors. The business makes a large investment in the necessary research and development.

Numerous businesses are forging strategic alliances, partnerships, and acquisitions to establish a firm footing in the industry. The Smart Glass market's major players include Force Impact Technologies INC. (US), Ericsson(Sweden), Honeywell International Inc. (US), DAQRI, LLC(US), UnaliWear Inc. (US), Huawei Technologies Co. Ltd. (China), General Electric Company(US), Fitbit Inc. (US), Revolar Inc. (US), ADT Inc. (US), Safelet B.V. (The Netherlands), Kore Wireless Group (US), 100Plus Inc (US), Skully(Georgia), MC David Inc. (US), PORTER (India), SVOR(France), Pestel(US) and others, are working on expanding the market demand by investing in research and development activities.

Honeywell International Inc. (US), the corporate headquarters of the American multinational conglomerate Honeywell International Inc. is in Charlotte, North Carolina. Aerospace, building technologies, performance materials and technology, and safety and productivity solutions comprise its four main business sectors. With one of the industry's most comprehensive and cutting-edge offering portfolios, we enable safer, healthier, more comfortable, and environmentally friendly air travel from takeoff at the airport to landing.

Also, The General Electric Corporation is a multinational American business established in 1892, was incorporated in New York and has its headquarters in Boston. The business engages in venture capital and finance, aviation, power, renewable energy, the digital sector, and additive manufacturing.

### **Key Companies in the Smart Glass market include**

- Force Impact Technologies INC. (US)
- Ericsson(Sweden)
- Honeywell International Inc. (US)
- DAQRI, LLC(US)
- Unaliwear Inc. (US)
- Huawei Technologies Co. Ltd. (China)
- General Electric Company(US)
- Fitbit Inc. (US)
- Revolar Inc. (US)
- ADT Inc. (US)
- Safelet B.V. (The Netherlands)
- Kore Wireless Group (US)
- 100Plus Inc (US)
- Skully(Georgia)
- MC David Inc. (US)
- PORTER (India)
- SVOR(France)
- Pestel(US)

### **Smart Glass Industry Developments**

**November 2020** The recent trend of all luxury cars having expansive sunroofs and panoramic roof panels has advanced.

**November 2022** To build houses out of sustainable materials, View and Nabr teamed up in January 2022. All Nabr residences will include View's smart windows and cloud-connected smart building network.

### **Smart Glass Market Segmentation**

#### **Smart Glass by Technology Outlook**

- Electrochromic Technology
- PDLC

- SPD
- Photochromic Technology

### **Smart Glass by Application Outlook**

- Architectural and Construction
- Transportation
- Automotive
- Aircraft
- Marine
- Consumer Goods
- Power Generation

### **Smart Glass Regional Outlook**

- North America
  - US
  - Canada
- Europe
  - Germany
  - France
  - UK
  - Italy
  - Spain
  - Rest of Europe
- Asia-Pacific
  - China
  - Japan
  - India
  - Australia
  - South Korea
  - Australia
  - Rest of Asia-Pacific
- Rest of the World
  - Middle East
  - Africa

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