+357 96 030922
info@marketpublishers.com

Energy Efficient Glass Market Forecasts to 2032 – Global Analysis By Coating Type (Soft-Coat (Low-E), Hard-Coat, Multi-Silver Coatings and Anti-Reflective Coatings), Glazing Type, Glass Type, Functionality, End User and By Geography

https://marketpublishers.com/r/E8A16A97EA6CEN.html
Date: September 2025
Pages: 200
Price: US$ 4,150.00 (Single User License)
ID: E8A16A97EA6CEN

Abstracts

According to Stratistics MRC, the Global Energy Efficient Glass Market is accounted for $32.98 billion in 2025 and is expected to reach $51.25 billion by 2032 growing at a CAGR of 6.5% during the forecast period. Energy-efficient glass, commonly known as low-emissivity (low-E) glass, is engineered to control heat transfer while allowing abundant daylight indoors. Its advanced coating reflects infrared radiation, ensuring interiors stay warm in cold weather and cool during hot seasons. By cutting reliance on heating and cooling systems, it lowers electricity costs and reduces carbon emissions. This makes it a crucial element in eco-friendly architecture and sustainable urban development. Frequently installed in homes, offices, and industrial facilities, energy-efficient glass enhances thermal performance, increases occupant comfort, and supports energy-saving goals. It also helps buildings qualify for sustainability certifications such as LEED and BREEAM.

According to the U.S. Department of Energy, windows and glazing systems account for 25–30% of residential heating and cooling energy use, making energy-efficient glass a critical component in reducing building energy consumption.

Market Dynamics:

Driver:

Rising focus on energy conservation

+357 96 030922
info@marketpublishers.com

A key factor boosting the energy-efficient glass market is the rising commitment to energy conservation worldwide. Governments and industries are placing greater emphasis on eco-friendly construction practices that limit energy wastage and cut greenhouse gas emissions. Since buildings consume substantial energy for heating, cooling, and illumination, efficient glass technologies have become vital. Low-E glass helps stabilize indoor climates, reduces HVAC system loads, and significantly cuts electricity bills. Growing awareness of sustainable living and stricter environmental policies are propelling demand. This momentum supports climate change mitigation goals while offering building owners benefits such as long-term financial savings, occupant comfort, and improved energy efficiency.

Restraint:

High initial cost of energy-efficient glass

The substantial initial expense associated with energy-efficient glass remains a major challenge for market growth. Advanced coatings, multi-glazing, and complex production processes drive up its price compared to traditional glass. Although the technology delivers lower energy bills and environmental benefits over time, the high upfront investment deters many potential buyers. Residential owners and small developers are especially cautious, given budget limitations. In cost-sensitive regions, the preference for cheaper alternatives reduces adoption rates. Despite its clear role in improving sustainability and performance, energy-efficient glass struggles with broader acceptance due to installation costs, slowing its expansion in certain markets, particularly across emerging economies.

Opportunity:

Rising demand for smart and sustainable buildings

Growing urban development and emphasis on eco-friendly infrastructure are opening strong opportunities for the energy-efficient glass market. Smart and sustainable buildings require advanced materials that reduce energy consumption while supporting modern automation. Energy-efficient glass fits this need by maintaining thermal comfort, cutting energy waste, and allowing greater natural light. When combined with smart systems, it enhances building performance through automated lighting and temperature management. With policymakers promoting sustainability standards and certifications, adoption is gaining momentum across residential and commercial projects. This

+357 96 030922
info@marketpublishers.com

transition toward greener construction offers vast market prospects, positioning energy-efficient glass as a crucial component of future smart cities worldwide.

Threat:

Intense market competition

The energy-efficient glass market faces a significant threat from growing competition among global and regional manufacturers. Companies are consistently developing new coatings, designs, and glazing methods, which increases rivalry and forces price reductions. This competition erodes margins, particularly for smaller businesses that lack strong financial resources. Additionally, alternatives such as insulating foils and cost-effective window treatments add pressure by offering lower-priced substitutes. The continuous demand for innovation and the heavy expenses of R&D make market survival challenging for less established firms. Despite the rising adoption of sustainable building materials, stiff competition remains a barrier to long-term profitability and stable growth.

Covid-19 Impact:

COVID-19 significantly affected the energy-efficient glass market by disrupting global supply chains and delaying construction activities. With strict lockdowns, labor unavailability, and suspension of commercial and residential projects, the demand for energy-efficient glass dropped sharply during 2020. Many planned infrastructure investments were deferred, slowing market growth. Manufacturing restrictions further intensified challenges, as raw material sourcing and product deliveries were hampered. Yet, the post-pandemic phase brought recovery, supported by rising awareness of sustainable architecture and government initiatives for eco-friendly development. Although short-term obstacles restrained growth, the crisis emphasized the crucial role of energy-efficient glass in meeting long-term energy conservation and green building goals.

The soft-coat (Low-E) segment is expected to be the largest during the forecast period

The soft-coat (Low-E) segment is expected to account for the largest market share during the forecast period because of its exceptional energy-saving features and versatility. Manufactured through advanced coating techniques, it contains multiple ultra-thin metallic oxide layers that reflect heat yet transmit ample daylight. This unique balance improves indoor comfort in both hot and cold conditions, making it highly

+357 96 030922
info@marketpublishers.com

suitable for a wide range of building applications. Architects and developers rely heavily on soft-coat Low-E glass in homes, offices, and industrial structures, as it minimizes dependence on artificial heating and cooling systems. Its ability to optimize energy efficiency, cut operating expenses, and align with sustainability goals ensures its widespread adoption.

The insulated glass units (IGUs) segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the insulated glass units (IGUs) segment is predicted to witness the highest growth rate due to their advanced insulation and soundproofing capabilities. Built with multiple glass layers separated by air or inert gas, IGUs excel in reducing energy loss and stabilizing indoor climates. This reduces reliance on HVAC systems, which is increasingly vital in green building initiatives. Their integration in housing, office spaces, and industrial facilities is rising, driven by strict energy codes and demand for sustainable architecture. IGUs improve thermal efficiency, enhance comfort, and generate cost savings, positioning them as the most dynamic and high-growth segment in the market.

Region with largest share:

During the forecast period, the Europe region is expected to hold the largest market share, primarily due to its robust regulatory environment and elevated energy prices. Across EU countries, strict energy performance standards for buildings lead to widespread demand for glazing technologies such as low-emissivity and solar-control glass as well as insulated units. Awareness among consumers regarding energy savings and environmental responsibility is strong, pushing construction professionals and homeowners to choose energy-efficient glass solutions. Governmental incentive programs, subsidies, and EU initiatives like the Green Deal and building energy directives further drive adoption. Additionally, innovation by European manufacturers ensures leadership in product quality and energy performance, reinforcing the region’s market dominance.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, driven by expanding urban centers, rising populations, and heavy investment in infrastructure. Nations like China and India, along with emerging Southeast Asian economies, are witnessing strong construction activity in both residential and

+357 96 030922
info@marketpublishers.com

commercial areas. Rising middle-class incomes and stronger emphasis on energy savings encourage the adoption of efficient glazing solutions. Additionally, government initiatives promoting smart cities, sustainable buildings, and stricter efficiency regulations boost demand. With growing awareness of eco-friendly practices and ongoing modernization, Asia-Pacific presents the most dynamic growth potential for manufacturers in this sector.

Key players in the market

Some of the key players in Energy Efficient Glass Market include Saint-Gobain, Guardian Industries, AGC Inc., Nippon Sheet Glass Co., Ltd., Cardinal Glass Industries, Inc., Morley Glass & Glazing Ltd., Central Glass Co., Ltd., SCHOTT AG, Sisecam Group, Vitro Architectural Glass, Corning Incorporated, PPG Industries, Sedak GmbH & Co. KG, CSG Holding Co., Ltd. and Taiwan Glass Ind Corp.

Key Developments:

In March 2025, Guardian Glass and the Velux Group have entered a joint development agreement concerning tempered vacuum insulated glass (VIG). This agreement will allow Guardian and Velux to develop manufacturing processes and capabilities together to meet the growing, evolving demand for VIG. With more than 170 years combined innovation and experience, Guardian and Velux will leverage their collective technical teams, intellectual property and additional tools to advance tempered VIG technology.

In December 2024, Sisecam has taken another significant step toward global leadership in soda ash industry by acquiring all shares of Ciner Group, in Sisecam Chemicals Resources LLC and Pacific Soda LLC in the U.S. With this agreement, Sisecam’s ownership in Pacific Soda LLC has increased to 100%. Pacific Soda LLC manages the ongoing natural soda ash investment in the U.S., which will produce 5 million tons of natural soda ash per annum upon completion.

In November 2024, Saint-Gobain announced that it has signed a 20-year renewable Power Purchase Agreement (PPA) with Quebec-based clean energy company Boralex, to provide wind and solar-based energy for Saint-Gobain’s industrial operations in France from three new renewable energy projects. According to the company’s the new agreement will enable two solar power plants and one wind farm to come online between the first quarter of 2026 and the first quarter of 2027.

Coating Types Covered:

+357 96 030922
info@marketpublishers.com

Soft-Coat (Low-E)

Hard-Coat

Multi-Silver Coatings

Anti-Reflective Coatings

Glazing Types Covered:

Single Glazing

Double Glazing

Triple Glazing

Vacuum Glazing

Glass Types Covered:

Annealed Glass

Toughened (Tempered) Glass

Laminated Glass

Insulated Glass Units (IGUs)

Functionalities Covered:

Thermal Insulation

Solar Control

Sound Insulation

+357 96 030922
info@marketpublishers.com

- UV Protection
- Self-Cleaning

End Users Covered:

- Building & Construction
- Automotive
- Electronics
- Solar Energy
- Other End Users

Regions Covered:

- North America
  - US
  - Canada
  - Mexico
- Europe
  - Germany
  - UK
  - Italy
  - France
  - Spain

+357 96 030922
info@marketpublishers.com

- Rest of Europe

Asia Pacific

- Japan
- China
- India
- Australia
- New Zealand
- South Korea
- Rest of Asia Pacific

South America

- Argentina
- Brazil
- Chile
- Rest of South America

Middle East & Africa

- Saudi Arabia
- UAE
- Qatar
- South Africa

+357 96 030922
info@marketpublishers.com

Rest of Middle East & Africa

What our report offers:
- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

10 GLOBAL ENERGY EFFICIENT GLASS MARKET, BY GEOGRAPHY

+357 96 030922
info@marketpublishers.com

11 KEY DEVELOPMENTS

12 COMPANY PROFILING

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Energy Efficient Glass Market Forecasts to 2032 – Global Analysis By Coating Type (Soft-Coat (Low-E), Hard-Coat, Multi-Silver Coatings and Anti-Reflective Coatings), Glazing Type, Glass Type, Functionality, End User and By Geography

Product link: https://marketpublishers.com/r/E8A16A97EA6CEN.html

Price: US$ 4,150.00 (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/E8A16A97EA6CEN.html