

## **Asia-Pacific Bipv Glass Market Forecast 2024-2032**

Market Report | 2024-12-10 | 159 pages | Inkwood Research

### **AVAILABLE LICENSES:**

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### **Report description:**

#### **KEY FINDINGS**

The Asia-Pacific BIPV glass market is set to grow at a CAGR of 19.08% during the projection period, 2024 to 2032. The market was valued at \$1234.66 million in 2023 and is set to reach an estimated revenue of \$5948.89 million by 2032. The market growth is driven by the increasing emphasis on integrating renewable energy solutions within the region's rapidly expanding construction industry.

#### **MARKET INSIGHTS**

The BIPV (building-integrated photovoltaic) glass market in the Asia-Pacific region is influenced by several factors, including the growing demand for sustainable and energy-efficient buildings, the expansion of the building and construction industry, and other related trends. The application of building-integrated photovoltaics is becoming more common as various countries in Asia-Pacific prioritize sustainability and energy efficiency in building design.

#### **REGIONAL ANALYSIS**

The growth analysis of the Asia-Pacific BIPV glass market covers key regions, including China, Japan, India, South Korea, Indonesia, Australia & New Zealand, and Rest of Asia-Pacific.

In recent years, the use of BIPV solar panels has seen increased adoption within the construction industry, particularly in the design of energy-efficient buildings. These panels help contribute to sustainability goals and enhance building performance by reducing reliance on fossil fuels. Energy efficiency and renewable energy are important considerations in the ongoing transition of the region's building sector, which is supporting the demand for BIPV glass. Furthermore, the rising demand for building integrated photovoltaic glass is aligned with policies supporting the development of zero-energy buildings and reducing the environmental impact of urbanization.

In addition, the building and construction industry is experiencing notable growth in the Asia-Pacific region, driven by rising investments in residential and commercial construction, a growing population, and urbanization. This development is positively influencing the demand for BIPV glass in residential, commercial, and industrial sectors. The region is home to several key players in the BIPV industry, alongside numerous smaller firms. Their presence contributes to the growth of the BIPV glass market, as many of these companies collaborate with construction firms and architects to offer solutions tailored to regional needs.

On the other hand, the Asia-Pacific BIPV glass market is characterized by the increasing adoption of solar energy panels in developing economies. Countries such as China, India, and Japan are investing heavily in renewable energy infrastructure and promoting the integration of solar power-generating modules within urban projects. This push is supported by government

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incentives and initiatives aimed at reducing dependency on fossil fuels, leading to a heightened focus on BIPV technology for both new and existing buildings. The emphasis on carbon footprint reduction further enhances the appeal of sustainable building materials like building integrated photovoltaic (BIPV) materials.

Moreover, companies in the region are adopting various strategies, such as launching new products and investing in research and development. For example, in April 2022, Japanese glass manufacturer AGC introduced a building-integrated PV panel designed for different building requirements. This product can be installed on facades, curtain walls, and canopies where regular glass is used. The SunJoule panels are customizable to meet specific client needs, offering options with monofacial or bifacial cells. Such innovations by market players contribute to the growth of the BIPV glass market in Asia-Pacific.

#### SEGMENTATION ANALYSIS

The Asia-Pacific BIPV glass market segmentation includes material, glazing type, component type, and end use. The material segment is further classified into crystalline silicon, amorphous silicon, and other materials.

One of the significant market segments by material in this region is amorphous silicon, which is used for its flexibility and suitability in diverse construction projects. Amorphous silicon provides an efficient solution for creating BIPV systems that integrate seamlessly into building facades, offering an alternative to traditional construction materials. This material's adaptability supports its application in a variety of industrial and commercial applications, especially as urban areas expand and the construction sector looks for innovative ways to meet energy needs while managing building aesthetics.

However, the market also faces challenges. High costs associated with BIPV installations and the technical expertise required for integrating building-integrated photovoltaic glass modules into complex building structures pose hurdles for widespread adoption. Additionally, the region's diverse climatic conditions create variability in the efficiency and effectiveness of photovoltaic modules, which can affect the performance of BIPV products across different locations.

#### COMPETITIVE INSIGHTS

Major companies operating in the Asia-Pacific BIPV glass market are Nippon Sheet Glass Co Ltd, JinkoSolar Holding Co Ltd, Hanergy Holding Group Ltd, etc.

JinkoSolar, headquartered in Shangrao, Jiangxi, China, manufactures a variety of solar products, including silicon ingots, wafers, solar modules, and both monocrystalline and multicrystalline photovoltaic (PV) panels. The company also provides engineering, procurement, and construction (EPC) services for solar systems. JinkoSolar distributes its products under the JinkoSolar brand to distributors, project developers, and system integrators in Asia-Pacific, the Americas, the Middle East, and Africa. The company's products serve applications in furnaces, wire saws, and various machinery, in addition to building-integrated photovoltaics (BIPV) glass.

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