

United States Bipv Glass Market Forecast 2024-2032

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Report description:

KEY FINDINGS

The United States BIPV glass market is projected to grow at a CAGR of 17.68% from 2024 to 2032. The market was valued at \$939.29 million in 2023, with an expected revenue of \$4067.06 million by 2032. The country's notable market growth is driven by increasing awareness and the adoption of building-integrated photovoltaics (BIPV) in both residential and non-residential sectors. The rising interest in sustainable construction methods, such as zero-energy buildings, has led to a greater demand for building integrated photovoltaic glass. These solutions integrate photovoltaic modules into construction materials, allowing buildings to generate solar power while also serving aesthetic and structural purposes.

MARKET INSIGHTS

Supportive government policies and tax incentives for green energy have been a significant factor in encouraging the adoption of BIPV systems in the United States. These policies help reduce the upfront cost of BIPV products, making it more attractive for developers and builders to integrate BIPV technology into their projects. The increasing demand for carbon footprint reduction and environmentally friendly sustainable building materials further contributes to this trend.

Furthermore, the United States BIPV glass market is expanding as the demand for sustainable building solutions grows. With a strong focus on renewable energy, energy efficiency, and green building standards, the US is increasingly adopting BIPV technologies in both residential and commercial sectors. Government incentives and building regulations that promote clean energy integration are accelerating the use of BIPV glass, which not only provides solar power but also enhances building insulation. As the market evolves, innovations in photovoltaic materials and designs are further boosting the appeal of BIPV glass for energy-conscious construction projects.

SEGMENTATION ANALYSIS

The United States BIPV glass market segmentation includes material, glazing type, component type, and end use. The component type segment is further classified into BIPV glass roofs, BIPV glass facades, and other component types.

BIPV glass facades are emerging as a key component type in the BIPV glass market, driven by their ability to combine aesthetic appeal with energy efficiency. These facades integrate photovoltaic technology directly into the exterior of buildings, allowing them to generate solar power while serving as a structural and protective element. One of the main advantages of BIPV glass facades is their versatility, as they can be designed to complement the architectural style of various buildings, from modern skyscrapers to residential homes.

These facades not only enhance the energy performance of a building by converting sunlight into electricity but also contribute to

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thermal insulation, reducing heating and cooling costs. Additionally, advancements in photovoltaic materials, such as high-efficiency crystalline silicon and thin-film solar cells, are improving the performance and visual quality of these facades, making them more attractive to architects and developers. As urban areas become more focused on sustainability and energy efficiency, BIPV glass facades are gaining popularity, offering a solution that integrates renewable energy generation with cutting-edge design and environmental benefits.

COMPETITIVE INSIGHTS

Some of the eminent companies operating in the United States BIPV glass market are ONYX Solar Group LLC, First Solar Inc, Ascent Solar Technologies Inc, etc.

First Solar Inc, headquartered in Tempe, Arizona, specializes in solar photovoltaic (PV) systems, designing and manufacturing PV solar modules using cadmium telluride (CdTe) technology. In addition to its expertise in solar PV systems, First Solar plays a growing role in the BIPV glass market, offering solutions that integrate photovoltaic modules into building materials for energy generation.

The company provides solar PV power systems and operational maintenance services, catering to utilities, commercial entities, independent power producers, and other system owners across regions such as Asia-Pacific, Europe, the Middle East, Africa, and North America. Moreover, the company's manufacturing facilities are located in the United States, Malaysia, and Vietnam.

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