

Europe Bipv Glass Market Forecast 2024-2032

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Report description:

KEY FINDINGS

The Europe BIPV glass market is projected to grow at a CAGR of 17.61% during the forecast years of 2024 and 2032. The market was valued at \$1794.98 million in 2023, capturing an expected revenue of \$7729.96 million by 2032. This growth is influenced by the increasing focus on sustainable construction and energy efficiency initiatives within the region.

MARKET INSIGHTS

A significant driver of the market is the stringent environmental regulations and energy policies across Europe, which are encouraging the adoption of BIPV systems. European Union (EU) directives focusing on climate change and the reduction of greenhouse gas emissions are pushing the construction industry to integrate solar power-generating modules within building designs. This has led to an increase in the demand for building integrated photovoltaic glass, particularly in industrial sectors where large surface areas can be used effectively for energy generation.

REGIONAL ANALYSIS

The growth evaluation of the Europe BIPV glass market includes an in-depth analysis of major regions such as the United Kingdom, Germany, France, Italy, Spain, Belgium, Poland, the Netherlands, and Rest of Europe.

The EU Energy Performance of Buildings Directive (EPBD) requires all new constructions to meet nearly zero-energy standards, making energy-efficient materials like BIPV glass essential. BIPV glass replaces conventional materials while generating electricity. The EU-funded PVSITES project demonstrated the efficiency of these systems with installations in Belgium, Spain, and France, demonstrating their reliability in different climates.

Thin-film technologies, such as copper-indium-gallium-selenide (CIGS) modules, are increasingly popular for their cost-effectiveness and design flexibility, with over 4,000 monitored MW installations showcasing operational success. Funding initiatives exceeding EUR5.4 million have been allocated to develop systems aligning with energy and construction regulations, improving integration and overall performance.

In Germany, over 1,000 BIPV installations are in place, focusing on solar-integrated public infrastructure. This development is supported by the German Renewable Energy Sources Act (EEG), which provides subsidies and tax benefits to promote building-level solar adoption. France has shown success in projects like the PVSITES initiative in Bordeaux, where BIPV systems achieved energy yields of up to 80%, proving effective in the Mediterranean climate. French regulations such as RT2012 require energy-efficient designs, further driving demand for BIPV solutions. Italy's urban redevelopment projects, such as those in Milan, integrate semi-transparent BIPV modules in curtain walls to meet the national goal of reducing building emissions by 30% by

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2030. Local tax rebates incentivize adoption, aligning economic and environmental goals.

The Netherlands and Spain are leading with innovative regional applications. Rotterdam's projects, including solar bike shelters and energy-generating office complexes, align with urban planning mandates for sustainable materials. Catalonia in Spain has become a hub for thin-film BIPV innovation, backed by regional incentives for energy self-sufficiency. The 2019 'Self-Consumption Law' in Spain further promotes renewable integration in residential and commercial sectors. These regional developments, influenced by unique policy frameworks, climate considerations, and economic factors, highlight the diverse approaches across Europe in advancing the BIPV glass market.

SEGMENTATION ANALYSIS

The Europe BIPV glass market segmentation includes material, glazing type, component type, and end use. The end use segment is further classified into residential, commercial, industrial, and other end uses.

Industrial and commercial applications of BIPV technology are expanding, as these sectors aim to minimize energy costs and comply with sustainability standards. The implementation of BIPV installations in industrial facilities not only supports the production of renewable energy but also contributes to reducing the carbon footprint of these buildings. However, the high initial investment and integration complexity associated with building-integrated photovoltaic glass modules can be a barrier to broader adoption.

In particular, retrofitting existing industrial buildings with photovoltaic modules involves technical and financial considerations that may slow down market growth. Additionally, ensuring compatibility between BIPV solar modules and various building types remains a regional concern, as construction standards and practices vary across countries within Europe.

COMPETITIVE INSIGHTS

Key players in the Europe BIPV glass market include AGC Inc, Nippon Sheet Glass Co Ltd, Onyx Solar Group LLC, etc.

Nippon Sheet Glass Co Ltd, headquartered in Tokyo, Japan, manufactures and distributes glass and glazing systems for commercial, residential, and automotive applications. The company's product range includes fire-resistant, solar control, noise control, thermal insulation, and safety glass, along with specialty products. NSG operates production facilities in multiple countries and serves markets in Europe, Asia-Pacific, North America, and South America.

Table of Contents:

TABLE OF CONTENTS

1. RESEARCH SCOPE & METHODOLOGY

1.1. STUDY OBJECTIVES

1.2. METHODOLOGY

1.3. ASSUMPTIONS & LIMITATIONS

2. EXECUTIVE SUMMARY

2.1. MARKET SIZE & ESTIMATES

2.2. MARKET OVERVIEW

2.3. SCOPE OF STUDY

2.4. CRISIS SCENARIO ANALYSIS

2.4.1. IMPACT OF COVID-19 ON THE BIPV GLASS MARKET

2.5. MAJOR MARKET FINDINGS

2.5.1. INCREASING DEMAND FOR BUILDING INTEGRATED PHOTOVOLTAICS (BIPV) GLASS IN THE INDUSTRIAL SECTOR

3. MARKET DYNAMICS

3.1. KEY DRIVERS

3.1.1. SUPPORTIVE POLICIES AND TAX INCENTIVES FOR GREEN ENERGY

3.1.2. INCREASING DEMAND FOR ENERGY-NEUTRAL STRUCTURES

3.2. KEY RESTRAINTS

3.2.1. HIGH DEPLOYMENT EXPENSES AND LIMITED EFFICIENCY OF PHOTOVOLTAIC MODULES

3.2.2. CHALLENGING INSTALLATION AND INTEGRATION SLOWS BIPV ADOPTION

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- 4. KEY ANALYTICS
 - 4.1. PARENT MARKET ANALYSIS
 - 4.2. KEY MARKET TRENDS
 - 4.2.1. LIGHTWEIGHT, FLEXIBLE THIN-FILM TECHNOLOGY IMPROVES EFFICIENCY
 - 4.3. PORTER'S FIVE FORCES ANALYSIS
 - 4.3.1. BUYERS POWER
 - 4.3.2. SUPPLIERS POWER
 - 4.3.3. SUBSTITUTION
 - 4.3.4. NEW ENTRANTS
 - 4.3.5. INDUSTRY RIVALRY
 - 4.4. GROWTH PROSPECT MAPPING
 - 4.4.1. GROWTH PROSPECT MAPPING FOR EUROPE
 - 4.5. MARKET MATURITY ANALYSIS
 - 4.6. MARKET CONCENTRATION ANALYSIS
 - 4.7. VALUE CHAIN ANALYSIS
 - 4.7.1. RAW MATERIAL SUPPLIERS
 - 4.7.2. MANUFACTURERS
 - 4.7.3. DISTRIBUTORS
 - 4.7.4. END-USERS
 - 4.8. KEY BUYING CRITERIA
 - 4.8.1. ENERGY EFFICIENCY
 - 4.8.2. COST
 - 4.8.3. DURABILITY
 - 4.8.4. AFTER-SALES AND SERVICES
- 5. MARKET BY MATERIAL
 - 5.1. CRYSTALLINE SILICON
 - 5.2. AMORPHOUS SILICON
 - 5.3. OTHER MATERIALS
- 6. MARKET BY GLAZING TYPE
 - 6.1. SINGLE MODULE
 - 6.2. DOUBLE MODULE
- 7. MARKET BY COMPONENT TYPE
 - 7.1. BIPV GLASS ROOFS
 - 7.2. BIPV GLASS FACADES
 - 7.3. OTHER COMPONENT TYPES
- 8. MARKET BY END USE
 - 8.1. RESIDENTIAL
 - 8.2. COMMERCIAL
 - 8.3. INDUSTRIAL
 - 8.4. OTHER END USES
- 9. GEOGRAPHICAL ANALYSIS
 - 9.1. EUROPE
 - 9.1.1. MARKET SIZE & ESTIMATES
 - 9.1.2. EUROPE BIPV GLASS MARKET DRIVERS
 - 9.1.3. EUROPE BIPV GLASS MARKET CHALLENGES
 - 9.1.4. EUROPE BIPV GLASS MARKET REGULATORY FRAMEWORK
 - 9.1.5. KEY PLAYERS IN EUROPE BIPV GLASS MARKET

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- 9.1.6. COUNTRY ANALYSIS
 - 9.1.6.1.1. UNITED KINGDOM
 - 9.1.6.1.1.1. UNITED KINGDOM BIPV GLASS MARKET SIZE & OPPORTUNITIES
 - 9.1.6.2. GERMANY
 - 9.1.6.2.1.1. GERMANY BIPV GLASS MARKET SIZE & OPPORTUNITIES
 - 9.1.6.3. FRANCE
 - 9.1.6.3.1.1. FRANCE BIPV GLASS MARKET SIZE & OPPORTUNITIES
 - 9.1.6.4. ITALY
 - 9.1.6.4.1. ITALY BIPV GLASS MARKET SIZE & OPPORTUNITIES
 - 9.1.6.5. SPAIN
 - 9.1.6.5.1. SPAIN BIPV GLASS MARKET SIZE & OPPORTUNITIES
 - 9.1.6.6. NETHERLANDS
 - 9.1.6.6.1. NETHERLANDS BIPV GLASS MARKET SIZE & OPPORTUNITIES
 - 9.1.6.7. BELGIUM
 - 9.1.6.7.1. BELGIUM BIPV GLASS MARKET SIZE & OPPORTUNITIES
 - 9.1.6.8. POLAND
 - 9.1.6.8.1. POLAND BIPV GLASS MARKET SIZE & OPPORTUNITIES
 - 9.1.6.9. REST OF EUROPE
 - 9.1.6.9.1. REST OF EUROPE BIPV GLASS MARKET SIZE & OPPORTUNITIES
- 10. COMPETITIVE LANDSCAPE
 - 10.1. KEY STRATEGIC DEVELOPMENTS
 - 10.1.1. MERGERS & ACQUISITIONS
 - 10.1.2. PRODUCT LAUNCHES & DEVELOPMENTS
 - 10.1.3. PARTNERSHIPS & AGREEMENTS
 - 10.1.4. BUSINESS EXPANSIONS & DIVESTITURES
 - 10.2. COMPANY PROFILES
 - 10.2.1. SHARP CORPORATION
 - 10.2.1.1. COMPANY OVERVIEW
 - 10.2.1.2. PRODUCT LIST
 - 10.2.1.3. STRENGTHS & CHALLENGES
 - 10.2.2. FIRST SOLAR
 - 10.2.2.1. COMPANY OVERVIEW
 - 10.2.2.2. PRODUCT LIST
 - 10.2.2.3. STRENGTHS & CHALLENGES
 - 10.2.3. TESLA
 - 10.2.3.1. COMPANY OVERVIEW
 - 10.2.3.2. PRODUCT LIST
 - 10.2.3.3. STRENGTHS & CHALLENGES
 - 10.2.4. CARMANAH TECHNOLOGIES CORP
 - 10.2.4.1. COMPANY OVERVIEW
 - 10.2.4.2. PRODUCT LIST
 - 10.2.4.3. STRENGTHS & CHALLENGES
 - 10.2.5. BELECTRIC
 - 10.2.5.1. COMPANY OVERVIEW
 - 10.2.5.2. PRODUCT LIST
 - 10.2.5.3. STRENGTHS & CHALLENGES
 - 10.2.6. WUXI SUNTECH POWER CO LTD

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- 10.2.6.1. COMPANY OVERVIEW
- 10.2.6.2. PRODUCT LIST
- 10.2.6.3. STRENGTHS & CHALLENGES
- 10.2.7. BOROSIL RENEWABLES LTD
- 10.2.7.1. COMPANY OVERVIEW
- 10.2.7.2. PRODUCT LIST
- 10.2.7.3. STRENGTHS & CHALLENGES
- 10.2.8. TAIYO KOGYO CORPORATION
- 10.2.8.1. COMPANY OVERVIEW
- 10.2.8.2. PRODUCTS LIST
- 10.2.8.3. STRENGTHS & CHALLENGES
- 10.2.9. ONYX SOLAR GROUP LLC
- 10.2.9.1. COMPANY OVERVIEW
- 10.2.9.2. PRODUCT LIST
- 10.2.9.3. STRENGTHS & CHALLENGES
- 10.2.10. AGC INC.
- 10.2.10.1. COMPANY OVERVIEW
- 10.2.10.2. PRODUCTS LIST
- 10.2.10.3. STRENGTHS & CHALLENGES
- 10.2.11. SCHEUTEN
- 10.2.11.1. COMPANY OVERVIEW
- 10.2.11.2. PRODUCT LIST
- 10.2.11.3. STRENGTHS & CHALLENGES
- 10.2.12. GOODWE
- 10.2.12.1. COMPANY OVERVIEW
- 10.2.12.2. PRODUCTS LIST
- 10.2.12.3. STRENGTHS & CHALLENGES
- 10.2.13. ERTEX SOLAR
- 10.2.13.1. COMPANY OVERVIEW
- 10.2.13.2. PRODUCT LIST
- 10.2.13.3. STRENGTHS & CHALLENGES
- 10.2.14. NIPPON SHEET GLASS CO LTD
- 10.2.14.1. COMPANY OVERVIEW
- 10.2.14.2. PRODUCT LIST
- 10.2.14.3. STRENGTHS & CHALLENGES
- 10.2.15. HANERGY HOLDING GROUP LTD
- 10.2.15.1. COMPANY OVERVIEW
- 10.2.15.2. PRODUCT LIST
- 10.2.15.3. STRENGTHS & CHALLENGES
- 10.2.16. JINKOSOLAR
- 10.2.16.1. COMPANY OVERVIEW
- 10.2.16.2. PRODUCT LIST
- 10.2.16.3. STRENGTHS & CHALLENGES
- 10.2.17. CANADIAN SOLAR
- 10.2.17.1. COMPANY OVERVIEW
- 10.2.17.2. PRODUCT LIST
- 10.2.17.3. STRENGTHS & CHALLENGES

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