

# Photovoltaic Materials Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

<https://marketpublishers.com/r/PA85D8060DE6EN.html>

Date: July 2023

Pages: 141

Price: US\$ 2,499.00 (Single User License)

ID: PA85D8060DE6EN

## Abstracts

### Market Overview:

The global photovoltaic materials market size reached US\$ 30.6 Billion in 2022. Looking forward, IMARC Group expects the market to reach US\$ 57.8 Billion by 2028, exhibiting a growth rate (CAGR) of 10.76% during 2023-2028.

Photovoltaic materials are semiconducting materials that can absorb solar energy and convert it into electricity. They comprise monocrystalline, polycrystalline or amorphous silicon, gallium arsenide, metal chalcogenides, and organometallics. They help in the production of low-cost, mechanically flexible, and large-area photovoltaic devices to allow relevant access to sustainable and clean energy. As a result, they find extensive applications in residential, non-residential, and utility sectors. At present, there is a rise in the installation of solar photovoltaics due to their accessibility, capacity, and efficiency, which is catalyzing the demand for photovoltaic materials worldwide.

### Photovoltaic Materials Market Trends:

The growing manufacturing of solar cell modules to supply power to residential and non-residential areas represents one of the key factors driving the market. Moreover, the rising awareness among individuals about the benefits of solar energy, along with increasing concerns about greenhouse gas emissions, are propelling the growth of the market. In addition, declining costs of photovoltaic materials, coupled with the limited availability of fossil fuels across the globe, is positively influencing the market. Besides this, there is a rise in the demand for organic photovoltaics to provide earth-abundant and low-energy-production photovoltaic (PV) solutions. In line with this, the increasing

utilization of dye-sensitized solar cells (DSSC), which enable the user to convert both artificial and natural light into energy and power various electronic devices, is bolstering the market growth. Apart from this, governments of several countries are undertaking initiatives to increase the usage of renewable energy. In addition, they are working towards the formulation and implementation of policies that support photovoltaic projects with grid connection convenience. Additionally, the rising employment of thin film-based solar technology due to its lightweight and cost-efficiency compared to traditional solar technology is strengthening the market growth.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global photovoltaic materials market report, along with forecasts at the global, regional and country level from 2023-2028. Our report has categorized the market based on type, material and application.

#### Breakup by Type:

- Polycrystalline Silicon
- Monocrystalline Silicon
- Cadmium Telluride
- Copper Indium Gallium Selenide (CIGS)
- Others

#### Breakup by Material:

- Front Sheet
- Encapsulant
- Back Sheet
- Others

#### Breakup by Application:

- Utility
- Residential
- Non-residential

#### Breakup by Region:

North America  
United States  
Canada  
Asia-Pacific  
China  
Japan  
India  
South Korea  
Australia  
Indonesia  
Others  
Europe  
Germany  
France  
United Kingdom  
Italy  
Spain  
Russia  
Others  
Latin America  
Brazil  
Mexico  
Others  
Middle East and Africa

### Key Questions Answered in This Report

1. What was the size of the global photovoltaic materials market in 2022?
2. What is the expected growth rate of the global photovoltaic materials market during 2023-2028?
3. What are the key factors driving the global photovoltaic materials market?
4. What has been the impact of COVID-19 on the global photovoltaic materials market?
5. What is the breakup of the global photovoltaic materials market based on the type?
6. What is the breakup of the global photovoltaic materials market based on the material?
7. What is the breakup of the global photovoltaic materials market based on application?
8. What are the key regions in the global photovoltaic materials market?
9. Who are the key players/companies in the global photovoltaic materials market?

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