

Smart Coatings Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

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Abstracts

The global smart coatings market size reached US\$ 2.3 Billion in 2022. Looking forward, IMARC Group expects the market to reach US\$ 6.8 Billion by 2028, exhibiting a growth rate (CAGR) of 19.5% during 2023-2028.

Smart coatings are unique films with default properties that sense and respond to external or environmental stimuli, including moisture, pH, chloride ion concentration, mechanical damage, temperature, and redox activity. They are made using responsive materials containing unique chemical, physical, mechanical, and electrical characteristics. They can help improve the efficiency of a system by reducing inspection times, maintenance costs, and equipment downtime. Besides this, as they have self-healing and self-repair properties, smart coatings are suitable for corrosion resistance, material protection, and other surface improvement applications. Consequently, they are employed in the healthcare, textile, transport, marine, aerospace, and electronics industries across the globe.

Smart Coatings Market Trends:

Leading players are developing environment-friendly smart coatings to minimize the emission of greenhouse gases (GHGs). This, in confluence with the thriving construction sector, represents one of the key factors propelling the growth of the market. Moreover, these coatings can contain both passive and active components so that upon application, the benefits of their prompt response based on the required stimuli can be achieved. Apart from this, most smart coatings contain metal and metal oxide nanoparticles, which provide numerous functional properties, such as high surface area, magnetic resonance relaxation, and electronic susceptibility. Furthermore, anti-corrosion variants find extensive applications in the automotive industry for the

manufacturing of scratch-free vehicles. In addition, they are used in fasteners, body hardware, door closure, lock parts, exhaust, suspension, engine components, clamps, and hose connections. This, coupled with the increasing sales of passenger vehicles, is catalyzing the demand for smart coatings solutions around the world. Other factors, including technological advancements and the rising reliance on smartphones worldwide, are projected to facilitate the market growth.

Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global smart coatings market report, along with forecasts at the global, regional and country level from 2023-2028. Our report has categorized the market based on layer type, function and end use industry.

Breakup by Layer Type:

Single-Layer

Multi-Layer

Breakup by Function:

Anti-Microbial

Anti-Corrosion

Anti-Fouling

Anti-Icing

Self-Cleaning

Self-Healing

Others

Breakup by End Use Industry:

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- Single-Layer
- Multi-Layer

Breakup by Function:

- Anti-Microbial
- Anti-Corrosion
- Anti-Fouling
- Anti-Icing
- Self-Cleaning
- Self-Healing
- Others

Breakup by End Use Industry:

- Building and Construction
- Automotive
- Marine
- Aerospace and Defense
- Others

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

Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being 3M Company, A&K Painting Company, Ancatt Inc, BASF SE, Dupont De Nemours Inc., Jotun A/S, NEI Corporation, PPG Industries, RPM International Inc., Tesla NanoCoatings Inc., The Lubrizol Corporation (Berkshire Hathaway Inc) and The Sherwin-Williams Company.

Key Questions Answered in This Report

1. What was the size of the global smart coatings market in 2022?
2. What is the expected growth rate of the global smart coatings market during 2023-2028?
3. What has been the impact of COVID-19 on the global smart coatings market?
4. What are the key factors driving the global smart coatings market?

5. What is the breakup of the global smart coatings market based on the layer type?
6. What is the breakup of the global smart coatings market based on the function?
7. What is the breakup of the global smart coatings market based on the end use industry?
8. What are the key regions in the global smart coatings market?
9. Who are the key players/companies in the global smart coatings market?

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