



Ice-resistant Coatings Market Demand Assures Motivated Revenue Share during 2021-2031

Ice-resistant Coatings: Introduction

- Coatings and surfaces that can delay ice formation (anti-icing) and facilitate rapid, facile removal of ice buildup (de-icing) are essential in a wide range of industries. Ice accretion on airplanes, ships, solar cells, wind turbines, and power lines is a significant physical and economic hazard. When ice accumulates on the exposed surfaces of airplanes, it can result in an increase in drag, decrease in lift, and reduced visibility. Ice loads on marine structures affect safety and performance in ice-covered regions. Ice accretion on wind turbines, particularly turbine blades, can severely impede aerodynamic performance, resulting in reduced power output.
- Ice or snow buildup on the surface is a common issue witnessed in cold-climate areas across the world. Icing of surfaces leads to safety concerns, impaired functionality, and high economic and environmental costs associated with deicing activities.
- Of late, there have been major technological and materials developments in ice-resistant coatings and surfaces, with new coatings developed with greater durability and ability to withstand different environment conditions

Key Drivers and Restraints of Global Ice-resistant Coatings Market

- Icing is accumulation of ice caused by freezing of liquids on a surface. Icing hampers the functioning of systems. Ice buildup is a common issue in several countries. Aircraft, power utilities, telecommunication lines, wind mills, solar panels, electric equipment, and utilities (such as heat exchangers in chemical plants) experience damage due to icing. For example, icing on screens and bodies of aircraft damages the aerodynamic shape of aircraft to a large extent and increases the load on aircraft. Ice-resistant coatings help cut costs and address safety concerns associated with icing. This is estimated to be a key driver of the global ice-resistant coatings market during the forecast period.
- Ice-resistant coatings have low durability, which makes them susceptible to mechanical wear and tear. These coatings need to be applied at regular intervals. They are not easy to repair. Sometimes, mechanical removal of ice is required even after the application of coatings. Lack of technology to produce ice-resistant coatings with desired properties

such as greater durability is likely to restrain the global ice-resistant coatings market during the forecast period.

Ice-resistant Coatings: Substrate Segment

- In terms of substrate, the ice-resistant coatings market can be classified into metal, glass, concrete, and others
- The metal segment is estimated to dominate the global ice-resistant coatings market during the forecast period. Ice-resistant coatings provide a protective layer and reduce deposition of ice on metal surfaces.
- The glass segment is estimated to expand at a rapid pace during the forecast period. Snow or ice accumulates on glass windows and windscreens of automobiles and aircraft. Icing on the windward surface of an aircraft changes its aerodynamic shape and poses a safety hazard. Hence, the glass segment is anticipated to expand at a considerable pace during the forecast period.

COVID-19 Impact on Ice-resistant Coatings Market

- Since the beginning of 2020, the global economy has been experiencing downturn with the outbreak of the COVID-19 pandemic. The outbreak of COVID-19 is anticipated to have a significant effect on production and distribution of ice-resistant coatings.
- Governments of several countries have imposed strict lockdowns to curb the spread of the COVID-19 pandemic. Many manufacturing companies are either shut down or running low on production capacity.
- Decrease in industrial activities due to the pandemic has been adversely impacting the global Ice-resistant coatings market.

Europe Dominates Global Ice-resistant Coatings Market

- In terms of region, the global ice-resistant coatings market can be divided into North America, Europe, Asia Pacific, Latin America, and Middle East & Africa
- Europe was the leading market for ice-resistant coatings, in terms of value and volume, in 2020. The region is estimated to continue its dominance during the forecast period. The region consists of Nordic countries, which have cold climate and are prone to issues caused by ice accumulation. The market in Europe is estimated to expand at a significant pace during the forecast period.
- North America is a leading consumer of ice-resistant coatings across the world. The market in the region is likely to expand at a rapid pace in the next few years. This can be

attributed to cold climatic conditions in the region, which augment the demand for ice-resistant coatings.

- Asia Pacific holds considerable share of the global market for ice-resistant coatings. The market in Latin America and Middle East & Africa is anticipated to expand at a considerable pace during the forecast period. The two regions are likely to create lucrative opportunities for the ice-resistant coatings market during the forecast period.

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Key Manufacturers Operating in Global Ice-resistant Coatings Market

The global ice-resistant coatings market was consolidated in 2020. Major players have prominent presence in developed and developing countries. Key manufacturers operating in the global ice-resistant coatings market include:

- PPG Industries Inc.
- Dow
- DuPont
- 3M Company
- NanoSonic Inc.
- Aerospace and Advanced Composites GmbH
- NEI Corporation
- Cytonix
- NeverWet LLC

Global Ice-resistant Coatings Market: Research Scope

Global Ice-resistant Coatings Market, by Substrate

- Metal
- Glass
- Concrete
- Others

Global Ice-resistant Coatings Market, by Application

- Aerospace & Automotive
- Renewable Energy
- Power Utility & Telecommunication
- Construction
- Others

Global Ice-resistant Coatings Market, by Region

- **North America**
 - U.S.
 - Canada
- **Europe**
 - Germany
 - U.K.
 - France
 - Italy
 - Spain
 - Russia & CIS
 - Rest of Europe
- **Asia Pacific**
 - China
 - India
 - Japan
 - ASEAN
 - Rest of Asia Pacific
- **Latin America**
 - Brazil
 - Mexico
 - Rest of Latin America
- **Middle East & Africa**
 - GCC
 - South Africa
 - Rest of Middle East & Africa

This intelligence report by TMR is the outcome of intense study and rigorous assessment of various dynamics shaping the growth of the market. TMR nurtures a close-knit team of analysts, strategists, and industry experts who offer clients tools, methodologies, and frameworks to make smarter decisions. Our objective, insights, and actionable analytics provide CXOs and executives to advance their mission-critical priorities with confidence. The scrutiny of the various forces impacting the dynamics of the market, and key and associated industries, guides enterprises in understanding various consumer propositions. Our clients leverage these insights and perspectives to enhance customer experience in the fast-paced business environment.

All our insights and perspectives are broadly based on 4 Pillars or Stages: ASBC-S, which offer an elaborate and customizable framework for the success of an organization. The essence and the roles of these in organizational successes are highlighted below:

- **Agenda for CXOs:** TMR, through the study, sets the tone for agendas that are pertinent to CEOs, CFOs, CIOs, and other CXO executives of businesses operating in the market. The perspectives help our clients to bridge the gap between agenda and action plan. TMR strives to offer guidance to CXOs to undertake mission-critical activities empowered by various business analysis tools, and boost the performance of the organizations. The perspectives guide you to decide on your own marketing mix that align well with the policies, visions, and mission.
- **Strategic Frameworks:** The study offers how organizations are setting both short-term and long-term strategic plans. Our team of experts collaborate and communicate with you to understand these to make your organizations sustainable and resilient during tough times. The insights help them decide sustainable competitive advantage for each business units.
- **Benchmarking for Deciding Target Markets and Brand Positioning:** The assessments in the study provides a scrutiny of marketing channels and marketing mix. Our various teams work synergistically with you to help identify your actual and potential direct, indirect, and budget competition areas. Additionally, the study helps you decide most effective budgets for various processes and promotional activities. Furthermore, the study guides you to set benchmarks for integrating people and processes with the 4Ps of marketing. Eventually, this will empower you to find out unique propositioning strategies and niches.
- **Business Composability for Sustainability (C-S):** Constant strategy planning for sustainability characterizing our C-S framework in the report has become more relevant than before in the face of disruptions caused by pandemics, recessions, boom and bust cycles, and changing geopolitical scenario. The TMR study offers a high level of customization to help you achieve business composability. Composable enterprises are increasingly gaining the attention of CXOs in order to help them combat market volatility. Our analysts and industry experts help you wade through such uncertainties and guide you to become a smart sustainable business in entirety.