

# **Self-healing Materials Market Size, Share & Trends Analysis Report By Product (Concrete, Coatings, Polymers, Asphalt, Fiber-reinforced Composites), By Technology, By Application, By Region, And Segment Forecasts, 2022 - 2030**

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## **Abstracts**

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### **Self-healing Materials Market Growth & Trends**

The global self-healing materials market size is expected to reach USD 9.9 billion by 2030, according to a new report by Grand View Research, Inc. The market is expected to expand at a CAGR of 25.5% from 2022 to 2030. Rising demand for high-quality construction materials due to increased infrastructure projects and urbanization is projected to steer the market growth in the near future. Self-healing materials are smart materials that have the ability to repair damages on their own caused due to their mechanical friction and with the efflux of time.

Post injury, the molecules of these materials re-adjust to replicate the original material. Initiation of cracks and other types of damages on the microscopic level change the electrical, thermal and acoustical properties of material leading to its complete failure. These materials correct these damages with or without human

intervention. These specialty products also extend the life span of the materials as well as the base layer or product on which they are applied. Microencapsulated or nanoencapsulated healing agents are present in capsulated constituents, which are released upon rupture. The growth of the market is expected to escalate due to unique properties of the products yielding long-term financial benefits as compared to

conventional composites.

### Self-healing Materials Market Report Highlights

The reversible polymers segment dominated the market and is anticipated to witness an estimated CAGR of 24.1% from 2022 to 2030

Thermally polymers and hydrogels have growing applications in automotive and medical especially in the therapeutic and diagnostic sector, which is expected to accelerate market growth in the coming years

The electronics and semiconductors segment is projected to witness the fastest growth rate over the forecast period. Manufacturers are involved in developing materials that can withstand physical deformation and naturally repair themselves without any external influence, such as flexible conductors, dielectrics and others

The U.S. market worth self-healing used in building and construction application was USD 62.7 million in 2021. Increased purchasing power and rise in demand for advanced construction materials in Canada and Mexico have increased preference for the use of self-healing composites

Europe witnessed the largest regional market growth and is anticipated to witness a CAGR of 21.8% from 2022 to 2030. The industry in Asia Pacific is projected to witness highest growth rates during the forecast years

The market is consolidated with the top companies to account for maximum share in 2021.

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