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The Global Market for Self-Healing Materials, Polymers and Coatings to 2033

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Abstracts

The need for sustainable manufacturing solutions is driving the growing market interest in self-healing materials, polymers and coatings. The use of self-healing materials, polymers and coatings can prolong the life of industrial materials, reducing plastic usage and negating the need to maintain and replace infrastructure. Self-healing materials and coatings can heal or repair themselves automatically and autonomously from damage (e.g. mechanical or corrosion) without any external intervention. This process leads to the (partial) restoration of the original properties of these materials, in particular the mechanical properties.

Inspired by natural biological systems, continuous efforts are being made to mimic natural materials and integrate self-healing capabilities into coatings, polymers and polymer composites. Main types of self-healing systems are intrinsic and extrinsic. Intrinsic self-healing is chemically driven by noncovalent bonds or reversible chemical bonds. In extrinsic systems microcapsules or vascular networks release healing agents to damaged locations or wounds. The Global Market for Self-Healing Materials, Polymers and Coatings provides a comprehensive review of this technology area, players, and market. Report contents include:

Global revenues for self-healing materials, polymers and coatings-historical and forecast to 2033.

Analysis of self-healing materials, polymers and coatings, by type.

Commercialised products.

Technology roadmap.

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Patent analysis.

Analysis of self-healing materials, polymers and coatings, by market.

Profiles of 35 companies, including in-depth information on products and target markets. Companies profiled include A2O Advanced Materials Inc., ASM, Inc., Basilisk, CompPair Technologies Ltd., Helicoid Industries and Tandem Repeat.

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