

The Global Market for Smart Materials to 2027

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Abstracts

Traditional materials and structures are designed for certain performance requirements such as bearing loads, reacting to speed and movement and lifespan. They are generally unable to modify their specifications if their environment changes.

Smart materials however can adapt and survive in demanding and unpredictable environments and maintain their performance. The last decade has seen a huge growth in the market for smart materials and structures as manufacturers seek solutions to regulatory and consumer requirements in aerospace, automotive, electronics, healthcare, construction etc. industries. Smart materials are able to detect and respond to any number of changes (e.g. pressure, temperature, electric and magnetic fields, chemicals etc.) and respond accordingly before reverting to their original state. This 200 page report highlights the latest innovations and products in the Smart Materials market, developed by large companies, research institutes, university groups and start-ups. Report contents include:

Technology and materials analysis: Piezoelectric, photochromic, thermochromic, electrochromic, shape memory, smart fluids, self-healing, thermo and ph-responsive polymers, Magnetocaloric, Poly (ionic liquid)s, Metal–organic frameworks, shape memory

Market analysis: Analysis of end user markets for smart materials:

Buildings, windows and glass.

Aerospace.

Smart coatings.

Automotive.

Energy harvesting.

Sensors.

Textiles.

Electronics.

Healthcare.

Market revenues forecasts: Detailed forecasts of the Smart Materials sector, by end user markets (revenues \$ millions), to 2027.

Producer profiles: Smart materials product developer profiles (Profiles of >150 companies).

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