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The Global Market for Nanocomposites 2017-2027

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Abstracts

The growing use of composites has resulted in increasing demand for nanomaterials, such as carbon nanotubes, graphene and nanocellulose, as companies seek alternatives to carbon fibre and petroleum-based packaging.

The need for continuous improvement in material performance is significant for engineering applications, with research focusing on new advanced materials with increased resistance to damage under operating conditions. This focus is more demanding in the case of structural composite materials, which are increasingly used in aeronautical/aerospace and automotive applications, as well as in civil infrastructure.

Composites incorporating nanomaterial reinforcements, modified interfaces or tailored multi-scale structures often demonstrate much better performance than neat composites. Nanomaterials can significantly alter the polymer properties even at low content (5 wt.%). They are utilized as reinforcements in polymers or as coatings enhancing the fibre/polymer interface.

In the automotive and aerospace markets, there is a need to develop multi-functional materials that offer structural enhancement, thermal conductivity and resistance to varied environments. Other markets that are being impacted by nanocomposites include:

Wind energy.

Flame retardants.

Rubber.

Thermoplastics.

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Elastomers.

Packaging.

Cabling.

Construction and civil engineering.

Electronics.

Sporting goods.

Thermal management.

REPORT CONTENTS INCLUDE:

Assessment by nanomaterial type, including metal oxide nanoparticles, carbon nanotubes, graphene, nanocellulose, fullerenes, nanoclays, nanodiamonds and nanoprecipitated calcium carbonate.

Forecasts for the nanocomposites market by nanomaterials type, by market and revenues.

Assessment of market opportunities by nanocomposite applications and markets.

Market challenges for nanocomposites.

Profiles of product developers, by market.

Profiles of over 145 nanocomposites companies.

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