

The Global Market for Nanostructured Coatings and Films (Nanocoatings) 2017-2027

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Abstracts

Research and development in nanotechnology and nanomaterials is now translating into tangible consumer products, providing new functionalities and opportunities in industries such as electronics, sporting goods, wearable electronics, textiles, construction etc. A recent example is quantum dot TVs, a multi-billion dollar boon for the High-definition TV market. Countless other opportunities exist for exploiting the exceptional properties of nanomaterials and these will increase as costs come down and production technologies improve.

The incorporation of nanomaterials into thin films, coatings and surfaces leads to new functionalities, completely innovative characteristics and the possibility to achieve multi-functional coatings and smart coatings. The use of nanomaterials also results in performance enhancements in wear, corrosion-wear, fatigue and corrosion resistant coatings. Nanocoatings demonstrate significant enhancement in outdoor durability and vastly improved hardness and flexibility compared to traditional coatings.

The Global Market for Nanostructured Coatings and Films (Nanocoatings) 2017-2027 examines a market that is already providing significant economic, hygiene and environmental benefit for sectors such as consumer electronics, construction, medicine & healthcare, textiles, oil & gas, infrastructure and aviation.

Industries affected include:

Oil and gas

Corrosion and scaling chemical inhibitors.

Self-healing coatings.

Smart coatings.

Coatings for hydraulic fracturing.

Aerospace & aviation

Shape memory coatings.

Corrosion resistant coatings for aircraft parts.

Thermal protection.

Novel functional coatings for prevention of ice-accretion and insect-contamination.

Renewable energy

Anti-fouling protective coatings for offshore marine structures.

Anti-reflective solar module coatings.

Ice-phobic wind turbines.

Coatings for solar heating and cooling.

Automotive

Anti-fogging nanocoatings and surface treatments.

Improved mar and scratch resistance.

Flexible glass.

Corrosion prevention.

Multi-functional glazing.

Smart surfaces.

Surface texturing technologies with enhanced gloss.

New decorative and optical films.

Self-healing.

Textiles & Apparel

Sustainable coatings.

High UV protection.

Smart textiles.

Electrically conductive textiles.

Enhanced durability and protection.

Anti-bacterial and self-cleaning.

Water repellent while maintaining breathability..

Medical

Hydrophilic lubricious, hemocompatible, and drug delivery coatings.

Anti-bacterial coatings to prevent bacterial adhesion and biofilm formation.

Hydrophobic and super-hydrophobic coatings.

Lubricant coatings.

Protective implant coatings.

High hardness coatings for medical implants.

Infection control.

Antimicrobial protection or biocidal activity.

Marine

Anti-fouling and corrosion control coatings systems.

Reduced friction coatings.

Underwater hull coatings.

Buildings

Thermochromic smart windows.

Anti-reflection glazing.

Self-cleaning surfaces.

Passive cooling surfaces.

Air-purifying.

Consumer electronics

Waterproof electronic devices.

Anti-fingerprint touchscreens.

Report contents include:

Global market size for target markets

Addressable markets for Nanostructured Coatings and Films (Nanocoatings), by nanocoatings type and industry

Estimated market revenues for Nanostructured Coatings and Films (Nanocoatings) to 2027, by market and applications

300 company profiles including products and target markets.

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