

The Global Market for Advanced Antimicrobial Coatings and Technologies 2023-2033

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Abstracts

The use of advanced antimicrobial coatings and technology (virucidal, bactericidal and fungicidal) has come to the fore recently due to the impact of the Covid-19 crisis, and has greatly increased demand, especially for high touch surfaces in healthcare, retail, hotels, offices and the home. Antimicrobial resistance (AMR) has been declared one of the top 10 global public health threats facing humanity by the World Health Organization and is projected to be responsible for the death of 10 million people every year by 2050. Antimicrobial surface technologies are considered an important factor in limiting the spread of infectious diseases, as a form of environmental disease control.

Industry interest in these types of coatings products was previously hindered by high price, and mainly limited to food packaging and healthcare settings. However, a significant market opportunity has arisen for companies to develop advanced coatings and surface solutions that can counter the health hazards caused by bacteria and viruses for a wide range of applications.

Their use makes it possible to provide enhanced antimicrobial, antiviral, mold-reducing and TVOC degrading processes, that are non-toxic and environmentally friendly, allowing for exceptional hygiene standards in all areas of work and life. As a result, it is possible to create a healthier living and working environment and to offer holistic solutions to people with a diminished immune system. Antimicrobial-based surface coatings prevent the spread of bacteria, fungi and viruses via infected surfaces of so-called high-traffic objects, such as door and window handles in public places, hospitals, public buildings, schools, elderly homes etc.

Advanced Antimicrobial Coatings and Technologies have numerous applications, for virtually all surfaces including:

Medical facilities and laboratories

Medical equipment;

Fabrics and clothing like face masks;

Hospital furniture;

Hotels and other public spaces;

Window glass;

Pharmaceutical labs;

Packaging;

Food packaging areas and restaurants;

Food processing equipment;

Transportation, air ducts and air ventilation systems;

Appliances;

Sporting and exercise equipment;

Containers;

Aircraft interiors and buildings;

Cruise lines and other marine vessels;

Restroom accessories;

Shower enclosures;

Handrails;

Schools and childcare facilities;

Playgrounds.

Report contents include:

Current technology and materials used in Advanced Antimicrobial Coatings and Surfaces. These include self-cleaning coatings, photocatalytic coatings, graphene, silicon dioxide nanoparticles, silver/nanosilver, photocatalytic coatings, zinc oxide/zinc oxide nanoparticles, hydrogels, nanocellulose, carbon nanotubes, fullerenes, gold nanoparticles, cerium oxide nanoparticles, chitosan/chitosan nanoparticles, copper particles, adaptive biomaterials, electroactive smart materials, 2D materials and antibacterial liquid metals.

Global market revenue forecasts to 2033, broken down by applications, regions, markets and types of coatings.

Analysis of end user markets for Advanced Antimicrobial Coatings and Technologies including:

Interiors

Stainless steel, glass, plastics and ceramic surfaces.

Medical facilities and sensitive building applications.

Air conditioning and ventilation systems.

Hand rails.

Restroom accessories.

Medical

Medical hygiene-medical devices and surface hygiene.

Wall coatings for hospitals.

Hospital furniture.

Medical implants.

Wound dressings.

Catheters.

Pharmaceutical labs.

Fabric supplies, scrubs, linens, masks (medical textiles).

Packaging

Food packaging.

Polymeric films with anti-microbial properties for food packaging.

Nanosilver coatings.

Antibacterial coatings on plastic films.

Textiles

Antibacterial cotton textiles for clothing and apparel.

Interior textiles.

Automotive textiles.

Food processing

Food preparation facilities.

Food packaging.

Food processing equipment.

Filtration

Water purification.

Air filtration units.

Other

Fitness equipment.

Water coolers and ice-making equipment.

Automotive interiors.

Reusable water bottles, coffee cups and shopping bags.

Consumer goods-children's toys, personal care items and appliances.

Profiles of over 200 companies. Companies profiled include Advanced Materials-JTJ s.r.o., Axcentive SARL, Bio-Fence, Covalon Technologies Ltd., CuConcepts GmbH, EnvisionSQ, Fusion Bionic GmbH, GrapheneCA, Halomine, HeiQ Materials, Integricote, Kastus, MedicFibers, Nano Came Co. Ltd., Nanosono, NanoTouch Materials, Nanoveu, NBD Nanotechnologies, NitroPep, OrganoClick, PPG, Reactive Surfaces and Spartha Medical SAS

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