

Antimicrobial Glass Powder Market Forecasts to 2032 – Global Analysis By Product (Copper, Silver, Zinc, Metal Oxide-based, Photocatalytic and Bioactive-based), Form, Size, Application, End User and By Geography

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Abstracts

According to Statistics MRC, the Global Antimicrobial Glass Powder Market is accounted for \$3.23 billion in 2025 and is expected to reach \$6.11 billion by 2032 growing at a CAGR of 9.5% during the forecast period. Antimicrobial glass powder is a specialized material infused with antimicrobial agents, such as silver, copper, or zinc ions, that inhibit the growth of bacteria, fungi, and other harmful microorganisms. This powder is frequently added to paints, coatings, ceramics, and plastics to offer durable hygienic protection in high-touch surface settings, food processing, and healthcare settings. Moreover, antimicrobial glass powder is becoming more popular due to its longevity, safety, and adaptability in a range of commercial and consumer applications, particularly in the wake of global health concerns and the growing demand for antimicrobial solutions.

According to data from the U.S. Centers for Disease Control and Prevention (CDC), healthcare-associated infections (HAIs) affect approximately 1 in 31 hospital patients daily in the United States. This statistic underscores the critical need for antimicrobial materials, such as antimicrobial glass powder, in healthcare settings to mitigate the spread of infections.

Market Dynamics:

Driver:

Rise in infections associated with healthcare (HAIs)

Hospitals and other healthcare facilities around the world are very concerned about infections linked to healthcare. The CDC estimates that HAIs cause billions of dollars in medical expenses and tens of thousands of deaths each year. To make clinical spaces safer, materials containing antimicrobial glass powder are being incorporated into wall panels, operating tables, bed rails, and medical equipment. Additionally, the powder is an essential component of infection control strategies because it lowers the microbial load on surfaces.

Restraint:

Exorbitant material and production costs

The comparatively high cost of producing antimicrobial glass powder is one of the main barriers. Due to the high cost of these raw materials, adding metal ions such as copper, zinc, or silver raises production costs considerably. Furthermore, advanced machinery and energy-intensive procedures are needed for the technology needed to evenly embed these ions into the glass matrix. These expenses are eventually transferred to the final consumer, which reduces the availability of antimicrobial glass products, especially in markets where consumers are price conscious or in applications where cost-effectiveness is a top concern.

Opportunity:

Growing attention to preventing long-term infections

The COVID-19 pandemic has radically changed how consumers and businesses think about infection control. Long-term, passive hygiene solutions that need little human involvement are currently gaining traction. This need is satisfied by antimicrobial glass powder because of its durability and resistance to deterioration and washing. Moreover, glass powder suppliers now have long-term sales channels owing to growing investments in robust antimicrobial infrastructure from sectors like food processing, pharmaceutical packaging, and elder care facilities.

Threat:

Competition from alternative technologies for antimicrobials

Emerging technologies like antimicrobial polymer additives, nanocoatings, photocatalytic surfaces (like TiO₂), and UV-based sterilization systems pose a serious threat to antimicrobial glass powder. These substitutes might have easier application procedures or be less expensive while providing comparable or better antimicrobial activity. Furthermore, many of them can be used on temporary surfaces or flexible substrates where glass-based materials are inappropriate, which puts them at a competitive disadvantage in industries where material flexibility is crucial.

Covid-19 Impact:

The COVID-19 pandemic significantly boosted the demand for durable hygiene products worldwide in the public infrastructure, healthcare, and consumer-facing sectors, which in turn helped the antimicrobial glass powder market. Increased interest in antimicrobial materials that could passively lower the microbial load without requiring continuous disinfection resulted from increased awareness of surface-based virus transmission. Moreover, hospitals, diagnostic labs, and clean room settings were looking for antimicrobial surfaces more and more to prevent infections, and commercial industries like retail, hospitality, and transportation were investigating these materials to protect their customers.

The copper segment is expected to be the largest during the forecast period

The copper segment is expected to account for the largest market share during the forecast period. Copper ions are a popular option for uses in public infrastructure, food packaging, and healthcare because of their exceptional ability to break down microbial cell membranes and enzymes. Antimicrobial glass powder based on copper is renowned for its broad-spectrum activity and long-lasting effectiveness against viruses, fungi, and bacteria. Because of its comparatively low production cost when compared to silver and its capacity to inhibit microbial growth even in high-traffic environments, it holds a dominant market position in a variety of antimicrobial applications.

The coatings segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the coatings segment is predicted to witness the highest growth rate. This is fueled by the expanding need for long-lasting, affordable, and simple-to-apply antimicrobial solutions in sectors like food packaging, healthcare, and construction. Enhanced flexibility is provided by antimicrobial coatings, which can be applied to a variety of surfaces, such as textiles, metals, glass, and plastics, and offer durable defense against microbial growth. Moreover, they are becoming more and more

popular in a variety of commercial and residential settings due to their versatility, which allows them to be applied to the outside and inside surfaces of buildings, cars, and equipment.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share, driven by the consumer goods, construction, and healthcare sectors' strong need for cutting-edge antimicrobial solutions. The adoption of antimicrobial materials has been accelerated by the region's strong emphasis on infection control, hygiene, and regulatory standards in both the public and private sectors. Additionally, North America's dominant market position is also a result of the presence of important manufacturers, intensive research and development efforts, and growing awareness of the advantages of antimicrobial surfaces and the demand in this area has also increased as a result of the post-pandemic focus on long-term hygiene solutions.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR. This expansion is driven by fast urbanization, industrialization, and rising health and hygiene consciousness, especially in nations like China, India, and Japan. The expansion of the market is being driven by the increasing need for antimicrobial solutions in the electronics, construction, food packaging, and healthcare sectors. Furthermore, the use of antimicrobial glass powder products is growing faster due to favorable government regulations, investments in healthcare facilities, and an increase in the middle class that is concerned about hygiene.

Key players in the market

Some of the key players in Antimicrobial Glass Powder Market include Hongwu International Group Ltd, American Elements Inc, Nippon Electric Glass Co., Ltd., LG Electronics, Schott AG, Ishizuka Glass Co., Ltd., Wienerberger AG, Koshida Corporation., AGC Inc., PPG Industries, Inc., BioCote Limited, Saint-Gobain, Asahi Glass Co., Ltd., Corning Inc and Vedayukt India Private Limited.

Key Developments:

In April 2025, LG Electronics signed a memorandum of understanding (MOU) with KEPCO and Hanwha Engineering & Construction on the 24th at Hanwha Building in

Jung-gu, Seoul to build a direct current-based data center and create an ecosystem. The three companies will promote a demonstration project to supply 1MW of data center servers and cooling facilities with DC power.

In March 2025, AGC Biologics announced the company won two awards from the annual CDMO Leadership awards, sponsored by Outsourced Pharma and Life Science Connect. AGC Biologics was named a winner in both the “Biologics – Global” and “Cell & Gene – Global” categories and is one of the few in the industry that scored high enough to be honored in multiple categories.

In November 2023, Schott and Accelink announced a strategic partnership by signing a long-term cooperation agreement at the China International Import Expo (CIIE) 2023. This collaboration is poised to strengthen the fiber optic communication supply chain and grow the field’s technological capabilities. Under the new agreement, SCHOTT will provide Accelink with transistor outline (TO) packages, which are key components of optical communication devices.

Products Covered:

Copper

Silver

Zinc

Metal Oxide-based

Photocatalytic

Bioactive-based

Forms Covered:

Powder

Granules

Coatings

Sizes Covered:

Nano-sized

Micro-sized

Applications Covered:

Paints & Coatings

Plastics & Polymers

Fiber & Textiles

Personal Care & Cosmetics

Other Applications

End Users Covered:

Healthcare

Consumer Electronics

Packaging

Building and Construction

Residential

Commercial

Industrial

Other End Users

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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