

NEWS RELEASE

28 June 2021
Nippon Sheet Glass Co., Ltd.

Launch of NSG Purity™, Glass Coated with Unique Sol-gel Technology – SIAA Certified for both Antibacterial and Antiviral Properties –

The NSG Group is pleased to announce the launch of its newly developed antibacterial and antiviral coated glass in response to growing interest in antiviral materials against the backdrop of the global pandemic. The new antibacterial and antiviral coated glass is based on the Group's unique sol-gel technology (*1) and has been named **NSG Purity™** (*2). Further, **NSG Purity™** was certified by the Society of International sustaining growth for Antimicrobial Articles (SIAA) in Japan (*3) in June 2021, in both of the antibacterial and antiviral categories, which can provide users with more assurance and recognition of its excellent performance. Following these developments, a commercial production line is planned to start operation in August 2021. Going forward, the Group intends to provide coating for various third-party glass, as well as supplying **NSG Purity™**.



In addition to its antibacterial and antiviral performance, effective both in light and in dark, **NSG Purity™** demonstrates high durability and transparency. These advantages can make **NSG Purity™** a desirable glass option for the places that people touch and need to be hygienic. The potential applications may include not only cover glass for smart phones and tablets but also a wide range of equipment such as touch screens of cash registers, ATMs, medical equipment, elevators and appliances used in the public places and at home.

Aiming to be a global glass supplier contributing to the world with high value-added glass products and services as defined in the Medium Term Vision, the NSG Group has identified "Safety & Comfort" as one of the three areas it intends to contribute to. The NSG Group will continue to develop and supply high quality antibacterial and antiviral products, as a way to achieve the Vision.

About the NSG Group (Nippon Sheet Glass Co., Ltd. and its group companies)

The NSG Group is the world's leading supplier of glass and glazing systems in the business areas of Architectural, Automotive and Creative Technology.

Architectural manufactures and supplies architectural glass as well as glass for the solar energy and other sectors.

Automotive serves the original equipment (OE) and aftermarket replacement (AGR) glazing markets. Creative Technology comprises several discrete businesses, including lenses and light guides for printers and scanners, and specialty glass fiber products such as glass cord for timing belts and glass flake. <https://www.nsg.com>

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Phone: +81-(0)3-5443-0100 or please use the contact form on the web (<https://www.nsg.com/en/media/media-contacts>)

CUSTOMER CONTACT:

Please use the contact form on the website and choose the inquiry type "Display Glass" (<https://www.nsg.com/en/contact-us>)

*1: Sol-gel technology

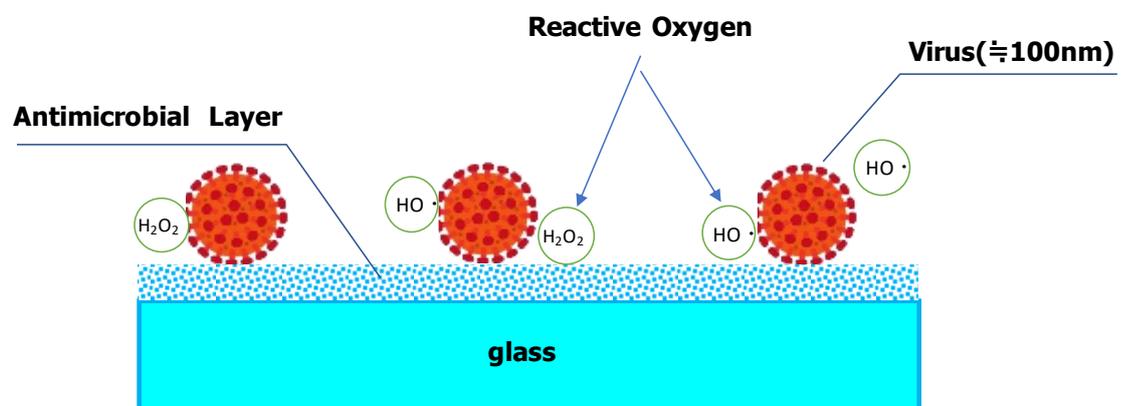
A material synthesis method for producing ceramics and glassy coatings, by densifying a gel synthesized by the chemical reaction of the solution raw material by heat treatment. Capable of forming highly adhesive coatings with the same silica structure as the glass substrate

*2: NSG Purity™

1) Mechanism of antibacterial and antiviral property

- Copper contained in the coating layer reacts with water, oxygen and other substances in the air to generate active oxygen (H₂O₂, OH, etc.)
- Active oxygen in turn inactivates bacteria and viruses by destroying their envelopes and decomposing lipids, protein and gene materials

Surface reaction:



2) Antibacterial and antiviral property

- Excellent antibacterial and antiviral properties
Both antibacterial and antiviral tests are conducted under the specified evaluation conditions of SIAA, and the performance required for certification acquisition is confirmed
- Excellent durability
With the proprietary sol-gel technology makes the coating layer highly durable (pencil hardness 9H) against friction and chemicals, suitable for frequent contacts and cleaning with wiping cloth
- Excellent optical and electrical characteristics
Glass coated with NSG Purity™ can be almost as transparent as uncoated glass, suitable for capacitive touch panels, etc.
- Effective in darker places
The antibacterial and antiviral performance is active even in darker places without ultraviolet rays or visible light, as it is based on the reaction of copper

3) Caution

- This product is not intended to treat or prevent illness. Further, it is not intended for medical treatment such as medical products and medical equipment
- The antiviral performance is based on laboratory test results and may vary depending on actual usage conditions
- This product does not completely prevent infection by viruses and bacteria. The antiviral and antibacterial effects are expressed against viruses on the surface of the coating and do not guarantee infection prevention

***3: SIAA (Society of International sustaining growth for Antimicrobial Articles)**

SIAA is an association established in Japan by testing institutions of antimicrobial agents and fungicides and manufacturers and processors of antibacterial, antifungal and antiviral products, with the goal to promote properly tested and safe antibacterial, antifungal and antiviral products widely. SIAA certifies and permits the usage of SIAA mark for the products that are tested under the ISO22196 and ISO21702 conditions and meet the SIAA's guidelines for quality management