

TECHNICAL DATA SHEET

VIRUSGUARD Updated July'25



VirusGuard is a next-generation emulsion paint designed to protect interior spaces with clinically proven **anti-viral and anti-bacterial** properties. Formulated with **Silver Ion Technology**, it deactivates up to **99.9% of viruses**, including **SARS-CoV-2**, **H1N1**, and **HFMD (Coxsackievirus A16)**— offering broader viral protection than any other product in its category.

In addition to its strong antiviral action, VirusGuard is fortified with anti-bacterial and anti-fungal properties, safeguarding walls from common germs such as MRSA, E. coli, and Staphylococcus Aureus. With superior washability, low odour, and near-zero VOC, it is ideal for homes, schools, childcare centres, clinics, and high-touch spaces requiring reliable hygiene and surface durability. Certified by SIRIM, the Singapore Green Label, and compliant with MS 903, VirusGuard provides advanced, science-backed protection

Product Features:

Silver Ion Technology

Clinically proven to deactivate 99.9% of viruses including **SARS-CoV-2**, **H1N1**, and **HFMD** viruses (ISO 21702), while eliminating harmful bacteria such as **E. coli**, **MRSA**, and **Staph. Aureus** (JIS Z2801).

Anti-Fungal Protection with Microblock Technology

Prevents growth of mould and fungus on painted surfaces

Superior Washability with Anti-Stain Technology

Durable film allows repeated washing without affecting paint performance—ideal for high-traffic and child-sensitive areas.

Low Odour, Near-Zero VOC

Formulated without lead, mercury, or APEO. Safer for indoor air and suitable for enclosed or poorly ventilated spaces.

• Luxurious Mid Sheen Finish

Provides a clean, smooth appearance with subtle light reflection and enhanced stain resistance.

• Certified Assurance

Complies with **MS 903:1984**, certified by **SIRIM Eco-Label** and **Singapore Green Label** for trusted environmental and safety performance.

NOTE: Nippon Paint **VirusGuard** serves to reduce the transmission of viruses and bacteria through inactivation process on painted surfaces. It does not warranty users' immunity to viruses and bacteria.

Paint Type	Product Type	Finishing	Recommended Substrate	Pack Size
Water based	Interior	Mid Sheen	Masonry, brick, plastering substrate and fibre board	1 Litre, 5 Litres, 15 Litres

Composition

Pigment : Mainly Titanium Dioxide, Iron Oxide, Carbon Black, Organic Pigments and Mineral Extender

Binder : Pure Acrylic Emulsion

Thinner : Water

Technical Data

Drying Time : Touch Dry : 30 minutes (Dependent on temperature and humidity)

: Hard Dry : 1 hour (Dependent on temperature and humidity)

Recoating Time : 2 hours (Dependent on temperature and humidity)



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Dry Film Thickness : Around 30 µm per coat (based on substrate condition)

No. of Coats : 2 coats

Theoretical Coverage $: 10 - 12 \text{ m}^2 \text{ per litre per coat (Actual coverage is dependent on substrate condition, application)}$

method, application condition and finishing appearance)

Volume Solid : ~ 40%

Shelf Life : Up to 36 months in tight sealed container

Application Method

Brush / Roller : Dilute the paint with not more than 5% of water. Preferable not dilute for best performance.

Recommended Coating System

Sealer / Primer : 8200 Premium Interior Sealer / 5200 Interior Sealer / Acrylic 5170 Wall : 1 Coat

Sealer / Hi-Bond Wall Sealer (on powdery or skim-coated surface)

Top Coat : VirusGuard : 2 Coats

Surface Preparation

Remove all loose, defective paint or powdery residues, loose chalk, dust and foreign matter. Repair cracks, uneven surfaces with EasySKIM 5000 All Purpose Joint Compound or suitable fillers. Smoothen the putty / filler areas with sand paper. Surfaces to be painted must be cleaned thoroughly and dry, it must be free from dirt, grease and other foreign matters. Allow all surfaces to dry completely prior to painting. Avoid painting when the moisture content and alkalinity of the walls are still high. (Recommended painting specification requires the moisture content of the walls to be below 16% measured by protimeter and alkalinity of the walls to be below pH9.) Spot prime with Nippon Interior Wall Sealer.

Cleaning

Clean up equipment with water immediately after use.

Certificates

Complies to Singapore Green Label, SIRIM Eco-Label and MS-SIRIM

Certified by: Singapore Environment Council (SEC) and SIRIM QAS

Tests

- 1. MS 903: 1984 on Specification for Latex Emulsion Paint for Interior Use
- 2. JIS Z2801:2000 on Antiviral Activity and Efficacy Test (Coxsackievirus A16, H1N1)
- 3. JIS Z2801:2000 on Antibacterial Activity and Efficacy Test (E. coli, MRSA and Staphylococcus Aureus)
- 4. ISO 21702:2019 on Antiviral Activity and Efficacy Test (SARS-CoV-2)
- 5. SS5: Part F5:2003 (2023) on Wet Scrub Resistance
- 6. ASTM D5116 on VOC Emission Test
- 7. SGLS Category 032 on Singapore Green Label
- 8. ECO 019:2012 on SIRIM ECO Label

Safety Precautions

- Keep container tightly closed and keep out of reach children or away from food and drink.
- Ensure good ventilation during application and drying.
- When applying paint, it is advisable to wear eye protection.
- In case of contact with eye, rinse with plenty of water immediately and seek medical advice.
- Remove splashes from skin by using soap or water.
- Paint must always be stored in a cool place.



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- When transporting paint, care must be taken. Always keep container in a secure upright position.
- Dispose off any paint waste in accordance with the appropriate Environment Quality Regulations.

Note

* Theoretical Coverage is based on a mathematical formula

$$\left[\frac{Volume\ Solid\ \%\ x\ 10}{Dry\ Film\ Thickness}\right] = m^2/lit/coat$$

and does not consider LOSS FACTORS.

Variables like porosity of substrate, application method, dilution ratio, dry film thickness, opacity and so on will affect the loss factor and can vary from 30% - 50% or even more.

Disclaimer

The information contained in this document is provided to the best of Nippon Paint's knowledge, based on laboratory testing and practical experience. As our products are considered semi-finished goods, their performance may be influenced by conditions beyond Nippon Paint's control. As such, we can only guarantee the quality of the product itself. Minor variations may be introduced to comply with local regulations. Nippon Paint reserves the right to modify the information in this document without prior notice.

Users are encouraged to consult Nippon Paint for specific guidance on the suitability of this product for their intended use and application method.

In case of discrepancies between language versions, the English (United Kingdom) version shall prevail.