

SurfaSil Kirei

Mineral photocatalytic coating

Product Description

SurfaSil Kirei is a highly breathable mineral photocatalytic coating with matte finish. It is an environmentally friendly mineral coating that uses photocatalytic pigments to reduce noxious gases and odours. Other main characteristics are water repellency, high vapour permeability, durability, and antimicrobial properties against algae, fungal, spores and surface contaminants. It provides exterior protection for buildings, while helping to degrade nitrogen oxide pollutants from the atmosphere. When used indoors, it improves air quality by eliminating odors and other organic pollutants. Water repellent groups line the pores of the paint and stop the ingress of liquid water but allow vapor to outgas. It is available in white color, but can also be tinted in earthy shades, strictly with inorganic colorants, for high durability over time. SurfaSil Kirei's photocatalytic activity is certified according to ISO 22197-1:2016 by the Institute of Nanoscience and Nanotechnology "Demokritos".

Recommended Use

Suitable for exterior & interior, new or previously painted mineral surfaces such as concrete, lime, plaster and mineral boards. Ideal for areas where pollution levels are high, such as urban, factories, etc. and indoor places with low air quality. It is also recommended for protection against mold and algae, in areas with high moisture and vapor condensation.

Key Benefits

- ☆ Reduces toxic gases (e.g. NO_x, VOCs) and organic pollutants
- ☆ Lightfast
- ☆ Resists algae and fungi growth
- ☆ Durability against weathering and UV radiation
- ☆ Environmentally friendly, low VOC
- ☆ Photocatalysis by both solar and artificial indoor light
- ☆ Self-cleaning effect
- ☆ Water-repellent
- ☆ Extremely water vapor permeable
- ☆ Excellent adhesion to mineral substrates
- ☆ Alkali resistant
- ☆ Non-flammable
- ☆ mineral matte appearance

SurfaSil Kirei

Mineral photocatalytic coating

Technical Specifications

Type ▶	mineral, silicon
Color ▶	White-can be tinted with inorganic colorants
Odor ▶	Characteristic
Density ▶	1.47 ± 0.05 g/cm ³
Thinner/Cleaning Solvent ▶	Water
Thinning ratio (% v/v) ▶	Up to 5% with water
Application temperature ▶	From 5°C to 35°C
Drying time ▶	Approx. 1h @ 20°C
Minimum recoat interval ▶	3h @ 20°C
Maximum recoat interval ▶	8h @ 20°C
pH ▶	11.5 ± 0.5
Viscosity ▶	100 ± 15 KU
Water vapor permeability (EN ISO 7783:2011) ▶	S _d < 0.01 m, class V1 (S _d < 0.14 m high)
Water absorption coefficient ▶	W < 0,15 kg/m ² *h ^{0.5} , class W2
VOC ▶	< 0.93 g/L
Gloss at 85° ▶	5-6 Low/Matt (< 10)

(*) Dry-to-recoat time is prolonged under low temperature and high humidity

Surface Preparation

All surfaces must be clean, dry, free of dust, oils, salts, grease, rust and loose residue. New cement substrates or new masonry should have matured for more than 4 weeks before application. Substrates with damage, cracks and holes should be repaired with appropriate repairing material of NanoPhos. SurfaSil Primer should be firstly applied in order to either equalize different levels of absorbency or enhance the adhesion on previously painted surfaces.

Application Instructions

Stir well before use. After one coat of SurfaSil Primer has been applied and it has cured for 6- 8 hours, then apply at least two coats of SurfaSil Kirei, diluted if necessary, with 5% (maximum value) water. Apply with a roller, brush or spray. On surfaces where waterproofing products have been applied, or on already modified surfaces, a test application should be made to a small area before complete application for any adhesion failure. While applying, protect eyes with protective goggles and hands

SurfaSil Kirei

Mineral photocatalytic coating

with suitable gloves. Also, cover nearby areas that are not to be coated (furniture, windows, marbles, tiles, doors, etc.). Do not apply if rain is imminent or substrates are wet or hot. Protect the newly painted surfaces from direct exposure to sunlight or strong winds.

Spreading Rate

8-10 m²/L, accordingly to the absorbance of surface application.

Storage

Store in the original closed package, in a well-ventilated area, strictly at a temperature of 5°C to 35°C, away from sunlight and frost, for 12 months. Inclement storage conditions may affect product quality.

Health & Safety

Read the label of the product before use. Safety Data Sheet is available through NanoPhos' website www.NanoPhos.com or upon request by contacting NanoPhos through email: info@NanoPhos.com or by telephone: (+30) 2292069312.

Available Packaging

- 3L Plastic Container
- 10L Plastic Container

Available in white. Other colors available upon request.

Disclaimer: The Technical Data Sheet recommendations for the use of NanoPhos' products are based on our scientific knowledge, laboratory studies and long-term experience. The information provided must be considered indicative and subject to constant review based on specific conditions and each practical application. The suitability of the product should be examined in each case for specific use and the end user bears full & exclusive responsibility for any side effects that may arise from the incorrect use of the product. The present edition of this technical datasheet automatically cancels any previous one

SurfaSil Kirei

Mineral photocatalytic coating

concerning the same product. For more information please contact NanoPhos:

info@NanoPhos.com

