

C-Guard® concrete floor system

C-Guard PS 181 W

Polymer silicate based on special polymers and water glass for strengthening, consolidation and water-repellent treatment of mineral surfaces

Intended use

C-Guard® PS 181 W is a clear, colourless to slightly yellowish liquid. It contains approximately 30% active ingredients and is alkaline, making it particularly suitable for treating highly alkaline substrates. It is supplied as a concentrate, to be diluted with demineralised water up to a maximum of 1:50.

C-Guard® PS 181 W is intended for waterproofing mineral substrates, particularly roof tiles and ordinary bricks. When diluting C-Guard® PS 181 W, add the product to demineralised water while stirring vigorously. The recommended dilution is from 1:5 to 1:50; the ideal dilution ratio depends on the mineral substrate.

It is particularly suitable as a water repellent for clay products (e.g. roof tiles, ordinary bricks, floor tiles and terracotta), as well as various natural stones, sandstone and gypsum. It is highly resistant to alkaline substrates.

Properties

- protects brickwork (walls) against rising damp and its consequences
- deep penetration and rapid curing
- excellent long-lasting water repellency even at very high dilutions
- deep penetration - 5mm
- invisible protection
- fully water-vapour-permeable protection
- greatly reduces the absorption of water and soluble salts (e.g. chlorides)
- significantly reduces the formation of white crystals on treated surfaces

Areas of use

- for consolidation and water-repellent treatment of mineral surfaces such as concrete, limestone, sandstone, plasterboard and roof tiles
- strengthening and water-repellent treatment of mineral building materials
- suitable for restoration of natural stone

Technical data

Property	Value and conditions
Packaging	5, 10, 25, 200, 1.000 L
Application temperature	Minimum 5°C (air and substrate temperature)
Application humidity	Minimum 35 and maximum 80% relative air humidity
Drying time (foot traffic)	20 °C: 2-3 h
Drying	5 h at 20°C for mechanical loading.
Drying	Direct rain no longer harms the coating 5 hours (20°C) after application.

Property	Value and conditions
Next coat	6 hours
Consumption — Dilution 1:10	Brick 300-400 ml/m ²
Colour	colourless
Active substance	30 %
Density	0.94 g/ml · DIN EN ISO 2811-2 20°C
VOC content	VOC free

(*All technical data stated in this technical data sheet are based on laboratory tests. Actual data may vary depending on application conditions beyond our control.)

Application and use

We recommend applying C-Guard® PS 181 W to hardened surfaces. For optimum results, treat concrete floors with C-Guard® PS 181 W at least 7 to 14 days after installation, or after sufficient time has elapsed for adequate cement hydration. It can be used on new or old substrates. The product develops its final properties 14 days after application.

Surfaces must be air-dry and clean (free from grease stains and dust) to ensure sufficient penetration. Recommended surface preparation methods are abrasive blasting, grinding, water cleaning or washing with chemical agents.

During application, the substrate and air temperature must be between +5 and +35°C. The surface must not be exposed to rain for at least 5 hours after application.

Apply by dipping or spraying with HVLP (high volume low pressure) equipment. Material consumption depends largely on substrate absorbency and must be determined beforehand by a test. For treating ordinary bricks, a dilution ratio of 1:10 is generally recommended, with consumption of approximately 0.3 - 0.4 l / m².

Non-porous materials such as glass, wood and metals cannot be protected with C-Guard® PS 181 W because it does not adhere to them or to most plastics. Masking is therefore usually unnecessary. White crystals will form on the surface. We recommend a test to reliably assess the effect on the surface. We also recommend testing coloured surfaces.

Before application, protect all surfaces sensitive to alkaline media and plants in the surrounding work area.

Cleaning tools and surfaces

Clean tools and equipment immediately after use with water and soap. Later, clean with acetone or nitro thinner, or mechanically.

Storage

The shelf life of the product in tightly closed, undamaged original packaging, stored in a dry place at temperatures between +5°C and +25°C, is 12 months from the date of manufacture.

Notes

All technical data stated in this technical data sheet are based on laboratory tests. Actual data may vary depending on application conditions beyond our control.

Fresh material must be protected from moisture, condensation or water for at least 5 hours after application. For outdoor applications, apply when the substrate temperature is falling. If the air and substrate need heating, do not use heaters that emit large amounts of CO₂ or moisture (gas, paraffin or other fossil-fuel heaters). Use electric heaters only.

Protective measures

- Forced ventilation must be provided when applying in enclosed, unventilated areas. The material must not be applied near open flames or welding operations.
- Wear protective equipment during work, including gloves, goggles and other necessary protection.

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- Change contaminated clothing and wash hands before eating and after finishing work.
 - Follow the safety warnings on the packaging label.
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Important warnings

- Before use, the coating must be acclimatised to the working environment for at least 24 hours.
- Transport is permitted only at temperatures above 5°C; otherwise the vehicle must be heated.
- Uncured or unbound material must be disposed of in accordance with legal regulations. Fully cured material may be disposed of at municipal landfill sites in accordance with legal regulations.
- Detailed safety precautions and physical, toxicological and ecological product data are provided in the safety data sheet, available from the Chemcolor sales department or at www.chemcolor.si.

These data are based on our experience to date and careful research. Site conditions and knowledge of the work itself affect application quality. Success depends on professional assessment of the substrate at handover and practical experience in selecting the appropriate product. When working, please also follow the finish manufacturer's recommendations and the safety data sheet for this product.