

C-Guard® system for concrete flooring

C-Guard AC 250 W

Water-based acrylic coating for concrete surfaces

Usage and Properties

C-GUARD® AC 250 W is a water-based acrylic coating for concrete surfaces with a very low volatile organic compound (VOC) content. C-GUARD® AC 250 W is especially suitable for protecting concrete surfaces in garages, basements, corridors and terraces, as well as concrete facades, fences, concrete chimneys and highly exposed walls.

Highlights

- Excellent adhesion to concrete surfaces
- Excellent UV and weather resistance
- Good mechanical and chemical resistance
- Easy application
- Single-component system

Field of application

- Two-coat system for weather-exposed vertical concrete surfaces, such as facades and retaining walls
- Floor coating for surfaces subject to limited mechanical and chemical loads, such as garages and basements
- Exposed walls in kindergartens, schools and hospitals

Technical properties

Property	Value and conditions
Packaging	5 kg 10 kg 25 kg
Processing	Minimum 12°C (air and substrate temperature)
Processing — Humidity	Minimum 30 % and maximum 75 % RH
Drying time (walkable)	12 °C: 4 - 6 h 20 °C: 2 - 3 h 30 °C: 1.5 - 2 h
Curing	6 hours at 20 °C for mechanical load
Curing	Direct rain no longer damages the coating after 4 hours at 20°C.
Further Coatings	6 hours
Consumption — Smooth surface, brush	Approx. 0.15-0.20 kg/m ²
Consumption — Rough surface, airless	Approx. 0.25-0.40 kg/m ²
Shade	All shades on the RAL and NCS colour charts
Solid Contents	57 ± 2 mass%; 47 ± 2 vol%
Density	1.2 g/ml DIN EN ISO 2811-2 20°C
VOC Content	IIA(c), 140 g/l (2010); product contains: max. 40 g/l

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

Preparation of substrate

The substrate must be at least 12°C, dry, clean and free of dust and grease. It must have adequate tensile and compressive strength and must not be friable. Remove adhesion-reducing contaminants, such as grease, oil and paint residues, using suitable methods. High-pressure washing at 100-150 bar is the most suitable method. The substrate must be sufficiently strong for its intended use. Grind floor surfaces before application using a diamond-segment disc or a shot-blasting machine. Surface strength must be at least 1.5 N/mm².

Contact Chemcolor technical support for further advice.

Preparation of material

Before use, warm the material to room temperature (20°C, minimum 12°C).

Mix the contents thoroughly for 2-3 minutes with a low-speed electric mixer (300-400 rpm).

Application of material

Primer: Dilute the material with 20-30% soft water to make an impregnation coat that equalises surface absorption and prevents an uneven finish.

Topcoat: Dilute C-GUARD® AC 250 W with up to 5% soft water, or to a suitable application viscosity for the working conditions.

Apply C-GUARD® AC 250 W with a synthetic-bristle brush, a roller for water-based acrylic paints, an air spray gun or airless equipment. Adjust the viscosity to the application method.

Air and substrate temperatures must be at least 12°C and relative humidity must not exceed 75%. The temperature difference between air, coating and substrate must be less than 3°C to avoid disrupting drying. Dew-point conditions may impair adhesion and drying or cause spots on the surface. Drying times refer to 20°C; lower temperatures extend and higher temperatures shorten drying time. Ensure adequate ventilation in basements and poorly ventilated spaces, because evaporated moisture prolongs drying and can cause film-surface defects.

Cleaning of tools and surfaces after use

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

Storage of material

Shelf life is 12 months from the date of manufacture in tightly sealed, undamaged original packaging, stored in a dry place at +10°C to +25°C.

Remarks

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

Do not apply materials to constantly damp surfaces. Protect freshly applied material from moisture, condensation and water for at least 4 hours after application at 20°C. Outdoors, apply while the substrate temperature is falling. Application to a warming substrate may cause pinholes due to rising air. Under certain conditions, high temperatures from underfloor heating or the surroundings can affect the surface appearance. If the air and substrate need heating, do not use heaters that release large amounts of CO₂ or moisture, such as gas, paraffin or other fossil-fuel heaters, as these can damage the surface. Use only electric heaters.

Safety information

- Provide forced ventilation when applying the material in enclosed, unventilated spaces. Do not apply near open flames or welding.
- Wear protective equipment, including gloves and goggles, during work.
- Change contaminated clothing and wash your hands before eating and after work.
- Observe the safety warnings on the packaging label.

Important notice

- Acclimatise the coating in the working environment for at least 24 hours before use.
- The same colour may appear as different shades in different product types. Bear this in mind where colour uniformity is important. Continue adjacent work areas with the same product type and production batch; check the batch number on the label. For subsequent deliveries to the same site, include both the colour code and the batch number from the previous order.
- Transport only at temperatures above 5°C; otherwise, the vehicle must be heated.
- Dispose of uncured or unbound material in accordance with applicable regulations. Fully cured material may be disposed of at municipal landfills in accordance with applicable regulations.
- Detailed safety precautions and physical, toxicological and ecological data are provided in the safety data sheet, available from Chemcolor sales or at www.chemcolor.si.

This information is based on our experience to date and careful research. Site conditions and knowledge of the work affect the quality of application. Successful results depend on a professional assessment of the substrate before work begins and practical experience in selecting the appropriate product. Please also follow the recommendations of the manufacturer of the final covering and the safety data sheet for this product.