

C-Guard® concrete protection system

C-Guard EP 570 DW

Two-component vapour-permeable epoxy coating intended for contact with drinking water and food

Intended use

C-Guard® EP 570 DW is a two-component vapour-permeable epoxy coating for concrete. C-Guard® EP 570 DW is used on surfaces that are not exposed to UV radiation. It is suitable for contact with drinking water and food.

Properties

- good mechanical resistance
- good resistance to chemicals (weak alkalis and acids, water, petrol and motor oils)
- vapour-permeable
- easy to apply
- no unpleasant odour

Areas of use

- Protection of concrete floor and wall surfaces exposed to mechanical and chemical loads
- Excellent adhesion to damp substrates (up to 6% CM) and high water-vapour permeability

Technical data

Property	Value and conditions
Packaging — A	1 kg 5 kg 25 kg
Packaging — B	0.2 kg 1 kg 5 kg
Mixing ratio — By weight	A : B = 100 : 20
Mixing ratio — By volume	A : B = 100 : 30
Pot life	12 °C: 150 minutes 20 °C: 100 minutes 25 °C: 80 minutes
Application temperature	Minimum 12 °C (air and substrate temperature)
Application humidity	Minimum 30 and maximum 85% relative air humidity
Drying time (foot traffic)	12 °C: 16 - 24 h 20 °C: 8 - 12 h 25 °C: 5 - 6 h
Drying	4 days at 20 °C for mechanical loading
Drying	10 days at 20 °C for chemical resistance
Subsequent coats	After 24 hours, no later than 72 hours at 20 °C
Consumption — Smooth substrate	approx. 0.12-0.18 kg/m ² /coat
Consumption — Rough substrate	approx. 0.20-0.35 kg/m ² /coat

Property	Value and conditions
Colour	All colours according to RAL and NCS colour charts.
Solids content	71 ± 2 wt.%; 55 ± 2 vol%
Density — A + B	1.48 ± 0.1 g/ml DIN EN ISO 2811-2 20°C
VOC content	IIA(j), 140 g/l (2010); product contains: max. 5 g/l

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.

Substrate

The surface (min. 12°C) must be dry and clean, free from dust particles and grease stains. The substrate must have sufficient tensile and compressive strength and must not be friable. Contaminants that prevent adhesion, such as grease, oil or paint residues, must be removed using suitable methods; the preferred method is pressure washing at 100-150 bar. The substrate must be sufficiently sound for its intended use.

Floor surfaces must be ground before application. A diamond-segment grinding disc or a shot-blasting machine is suitable. The surface strength must be at least 1.5 N/mm². The possibility of moisture entering from below must be permanently excluded. For further advice, contact the Chemcolor technical department.

Mixing

Before use, warm both containers to room temperature (20°C, minimum 12°C). The mixing ratio is 5:1 by weight, and the pot life is approximately 100 min (20°C and normal working conditions). Do not apply the coating after the pot life has expired, as this may cause problems with adhesion, drying or gloss.

Add component B to component A in the specified ratio and mix thoroughly with an electric mixer for 2-3 min at low speed (200-400 min⁻¹). To avoid mixing errors, we recommend transferring the mixture to a clean container and briefly mixing it again.

Application and use

Primer: To produce the primer coat, thin the material with 20% water.

Topcoat: Dilute with up to 5% soft water, or to a suitable application viscosity for the working conditions.

C-Guard® EP 570 DW can be applied by brush (synthetic bristles only), roller (for water-based two-component epoxy coatings) or spraying. Adjust the viscosity to suit the application method.

The air and substrate temperature must not be below 12°C and/or the relative humidity above 85%. The temperature difference between the air, coating and substrate must be less than 3°C to avoid disrupting drying. Reaching the dew point can cause poor adhesion, drying problems or local defects (surface marks). Drying times refer to 20°C; lower temperatures extend drying time, while higher temperatures shorten it. When applying in basements or poorly ventilated areas, provide adequate ventilation, as evaporated moisture extends drying times and can cause defects on the coating surface.

Consumption depends on the substrate type, porosity and roughness, surface preparation, application losses, etc.

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 +10°C and +25°C, is 12 months from the date of manufacture.

Notes

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Do not apply epoxy materials to permanently damp surfaces. Fresh epoxy material must be protected from moisture, condensation or water for at least 24 hours after application. For outdoor applications, apply when the substrate temperature is falling. Application to a warming substrate may cause pinholes in the film due to rising air. Under certain conditions, high temperatures from the floor (underfloor heating) or surroundings may affect the surface appearance. 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), as these may damage the floor surface. Use electric heaters only.

If component B crystallises, heat it to approximately 40°C to dissolve the crystals. The material can then be used normally. Crystallisation is a normal occurrence in epoxy resins.

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

Important warnings

- Both components must be acclimatised to the working environment for at least 24 hours before use.
- The same colour may have a different shade in different product types. This must be taken into account when carrying out work where colour uniformity is very important. Adjacent work areas must therefore always be continued using the same production batch (check the batch number on the label) and the same product type. For subsequent deliveries to the same site, always state the batch number from the previous order as well as the colour code.
- 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.

The harmonised European standard EN 13813, "Screed material and floor screeds – Properties and requirements", specifies requirements for materials used in indoor floors.

	
Chemcolor Sevnica d.o.o. Dolnje Brezovo 35 8290 Sevnica-SLO	
EN 13813-SR-B2.0-AR0.5-IR36	
Synthetic resin screed/coating for indoor use (installed in accordance with the technical data sheet)	
Reaction to fire:	Efl
Release of corrosive substances	SR
Water permeability:	NPD
BCA abrasion resistance:	AR 0.5
Bond strength:	B 2.0
Impact resistance:	IR 36
Impact sound insulation:	NPD
Sound absorption:	NPD
Thermal insulation:	NPD
Chemical resistance:	NPD

NPD = No Performance Determined

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.