

C-Guard® system for concrete flooring

C-Guard EP 308

Two-component, solvent-free coloured epoxy finishing coating

Usage and Properties

C-GUARD® EP 308 is a two-component, solvent-free coloured epoxy finishing coating.

C-GUARD® EP 308 protects concrete, screeds, levelling compounds and mastic asphalt indoors, including warehouses, production areas, showrooms, garages, shops, silos and boiler rooms. It can also be used for non-slip floors.

Highlights

- Good chemical resistance
- Sealing surface
- Easy maintenance
- Easy installation
- Solvent free

Field of application

- As a final layer on concrete, screeds, self-levelling materials, mastic asphalt
- For floors under normal to medium-heavy mechanical and chemical loads
- Non-slip floor coatings with quartz sand or SiC aggregate

Technical properties

Property	Value and conditions
Packaging — Comp. A	8.5 kg 17.0 kg
Packaging — Comp. B	1.5 kg 3.0kg
Mixing Ratio — Parts by weight	A : B = 85 : 15
Mixing Ratio — Parts by volume	A : B = 78 : 22
Pot life (max. allowed)	10 °C: 40 minutes 20 °C: 30 minutes 30 °C: 20 minutes
Processing	Minimum 10°C (room- and floor-temperature)
Processing — Humidity	Minimum 30 % and maximum 75 % RH
Curing Time (Accessibility)	10 °C: 24 - 30 h 20 °C: 18 - 22 h 30 °C: 15 - 17 h
Curing	5 days at 20 °C for mechanical load
Curing	8 days at 20 °C for chemical resistance
Further Coatings	After 24 hours at 20 °C
Further Coatings	but no longer than 48 hours at 20 °C

Property	Value and conditions
Consumption — Primer, final coat	cca. 0.60 - 0.80 kg/m ² depends on surface and application method
Consumption — Antiabrasion coat	cca. 0.35 - 0.5 kg/m ²
Solid Contents	<99 · weight-%
Specific Weight — Comp. A+B	1.53 ± 0.1 · g/ml · DIN EN ISO 2811-2 (20 °C)
Tensile Strength	cca 60 · MPa · DIN 53 455
Flexural Strength	cca 40 · MPa · DIN 53 452
Bond Strength	> 1.5 · MPa · DIN EN 1542
Shore-Hardness D	78; 81 · After 1; 7 days · DIN 53505

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances out of our control.

Preparation of substrate

The substrate (min 10°C) to be coated has to be levelled, dry (under 3% CM) and free of dust, has to have adequate tensile and compressive strength and be free from weakly-bonded components or surfaces. Surface must be primed with C-Guard® EP 120 or EP 152, depending on surface and application conditions.

Remove grease, oil, paint residues and other contaminants that prevent adhesion using suitable methods. The substrate must have adequate tensile and compressive strength and must not crumble. Surface strength must be at least 1.5 N/mm².

The substrate must have adequately strength for the intended use.

Preparation of material

Before the use we heat up both vessels to room temperature (preferably 20°C, minimum 15°C). Mixing ratio is 85:15 (weight), pot life is approximately 30 min (20°C and normal working conditions).

Mix comp. B – hardener into the comp. A – resin in exact ratio and blend for at least 2 - 3 minutes with a slow speed mixer (300 - 400 rpm). To avoid mixing errors it is recommended to empty the resin/hardener-mixture into a clean container and mix briefly once again.

Do not apply the coating after its pot life has expired, as this may cause problems with adhesion, drying or gloss.

Application of material

As primer we recommend to use C-Guard® EP 120 or EP 152, depending on surface and application conditions.

For levelling uneven surfaces we recommend to fill C-Guard® EP 120, EP 152 or EP 308 with quartz flour/sand. The consistency has to be adjusted depending on surface and application method.

Apply C-Guard® EP 308 with a short-pile roller for two-component epoxy systems, crosswise in an M pattern. A notched trowel or metal or plastic float may also be used.

Floor and air temperature must not be below 10°C, relative humidity must not be above 75%. The difference between air, coating and substrate temperatures must be less than 3°C so the curing will not be disturbed. If a dew-point situation occurs this may affect adhesion, curing and local spotting may occur. Curing times are measured at 20 °C, lower temperature will increase and higher temperature will decrease the curing and processing time.

Cleaning of tools and surfaces after use

To remove fresh contamination and to clean tools, use C-Guard® Thinner immediately. Hardened material can only be removed mechanically.

Storage of material

Shelf life is 12 months from production in tightly sealed, undamaged original packaging stored dry at +10°C to +25°C.

Remarks

All technical data stated in this Product Data Sheet are based on laboratory tests on average samples. Actual measured data may vary due to circumstances beyond our control.

Do not apply epoxy materials to constantly damp surfaces. Protect fresh epoxy from moisture, condensation and water for at least 24 hours. Outdoors, apply while substrate temperature is falling; a warming substrate may cause pinholes as air rises. Under certain conditions, high temperatures from underfloor heating or the surroundings may affect the surface appearance. If heating is required, do not use heaters releasing large amounts of CO₂ or moisture (gas, paraffin or other fossil-fuel heaters), as they may damage the flooring. 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 gloves, goggles and clothes when mixing or using
- Before eating and after work change contaminated clothes and thoroughly wash your hands.
- Read thoroughly all Material Safety Data Sheets (MSDS) and follow product labels and warnings.

Important notice

Both components must acclimatise in the working environment for at least 24 hours before use.

The same colour may differ in shade between product types. Where colour uniformity matters, use the same product type and production batch on adjoining areas; check the batch number on the label. For later deliveries to the same project, state both the colour and the batch number from the earlier order.

Transport only above 5°C; otherwise use a heated vehicle.

- Dispose of uncured or unbound material in accordance with applicable law. Fully cured material may be disposed of at municipal landfills in accordance with applicable law.
- For information and advice on the safe handling, storage and disposal of chemical products use the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data and is available on www.chemcolor.si or at Chemcolor sales services.

The harmonised European Standard EN 13813 "Screed material and floor screeds - Properties and requirements" sets requirements for materials used in indoor floors. Structural screeds and coatings contributing to the load-bearing capacity of a structure are

outside its scope. Synthetic resin floors and screeds fall within its scope and must comply with Annex ZA.3, Table ZA.1.5 and 3.3 for CE marking and with the Construction Products Directive (89/106).

	
Chemcolor Sevnica d.o.o. Dolnje Brezovo 35 8290 Sevnica-SLO	
EN 13813-SR-B2.0-AR0.5-IR23	
Synthetic Resin Screed Mortar/ - Coatings for interior areas, build-up according to product information	
Fire behaviour:	Efl
Release of corrosive substances:	SR
Water permeability:	NPD
Abrasion resistance according to BCA:	AR 0.5
Adhesive tensile strength	B 2.0
Resistance to impact:	IR 23
Subsonic noise:	NPD
Sound absorption:	NPD
Thermal insulation:	NPD
Chemical resistance:	NPD

NPD = No Performance Determined

These data are based on our experience and careful research. Site conditions and workmanship affect application quality. Successful results depend on professional assessment of the substrate and practical experience in selecting the appropriate product. Please also follow the finishing-coating manufacturer's recommendations and the safety data sheet for this product.