

C-Guard® system for concrete flooring

C-Guard EP 152

Two-component, moisture-resistant, colourless epoxy primer

Usage and Properties

C-GUARD® EP 152 is a solvent free two component epoxy colorless primer. It is highly moisture resistant. C-GUARD® EP 152 can be applied on pale-damp surfaces to displace water, resulting in excellent adhesion. It combines good adhesion and wetting power and therefore is extremely appropriate for difficult substrates.

C-GUARD® EP 152 is suitable for difficult substrates above 12°C. It is used to prepare concrete surfaces, screeds and levelling compounds with adequate compressive and flexural strength. It also has excellent adhesion to metal substrates.

Highlights

- Can be applied to damp substrates
- Very high adhesion
- Crack reinforcement
- Great penetration
- Excellent chemical resistance
- Solvent-free

Field of application

- Primer for subsequent coats on slightly damp and chemically cleaned substrates.
- Vapour barrier on damp substrates.
- Hardening of inadequately strengthened substrate.
- Antiabrasion-coat for sealing and levelling.

Technical properties

Property	Value and conditions
Packaging — Comp. A	10 kg 15 kg
Packaging — Comp. B	6 kg 9 kg
Mixing Ratio — Parts by weight	A : B = 100 : 60
Mixing Ratio — Parts by volume	A : B = 100 : 66
Pot life (max. allowed)	12 °C: 50 minutes 20 °C: 35 minutes 30 °C: 20 minutes
Processing	Minimum 12°C (room- and floor-temperature)
Processing — Humidity	Minimum 30 % and maximum 75 % RH
Curing Time (Accessibility)	12 °C: 16 - 24 h 20 °C: 8 - 12 h 30 °C: 5 - 6 h
Curing	2 -3 days at 20 °C for mechanical load

Property	Value and conditions
Curing	10 days at 20 °C for chemical resistance
Further Coatings	On a dry substrate after 12-16 hours,
Further Coatings	but no longer than 48 hours at 20 °C
Consumption — Primer	Approx. 0.3 - 0.4 kg/m ²
Consumption — Antiabrasion Coat	Approx. 0.4 - 0.6 kg/m ²
Specific Weight — Comp. A+B	1.08 · g/ml · DIN EN ISO 2811-2 (20 °C)
Viscosity — Comp. A+B	900 - 1.000 · mPas · DIN EN ISO 3219 (23 °C)
Solid Contents	100 · weight-%
Tensile Strength	— · N/mm ² · DIN EN 196/1
Compressive Strength	— · N/mm ² · DIN EN 196/1
Bond Strength	> 1.5 · N/mm ² · DIN EN 1542
Shore-Hardness D	80 · after 1 day · 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 12°C) to be coated has to be levelled, dry (under 4% - CM) and free of dust, has to have adequate tensile and compressive strength and be free from weakly-bonded components or surfaces. Contaminants that decrease adhesion, such as grease, oil and paint residues must be removed.

Grind the substrate before application using a diamond-segment disc or shot-blasting machine. Completely remove friable concrete and cement laitance. Vacuum all dust and removed material before applying the product. Surface strength must be at least 1.5 N/mm². The possibility of moisture ingress from below must be permanently excluded.

The substrate must be sufficiently strong for its intended use. Adhesion on inadequately strong substrates may be improved by the product's strong reinforcing properties; a test is required.

Under certain conditions, C-Guard® EP 152 may be applied to damp substrates up to 6.5% CM or inadequately strong substrates. In these cases apply two coats totalling at least 0.6 kg/m². Contact Chemcolor technical support for advice.

Preparation of material

Before use, warm both containers to room temperature (20°C, minimum 12°C). The mixing ratio is 15 : 9 by weight. Pot life is approximately 35 minutes at 20°C under 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.

When components A and B have been mixed, if required add the quartz sand and fine filler and mix for 2 minutes until a uniform mix is achieved. Over mixing must be avoided to minimise air entrainment.

Application of material

Primer: Apply immediately after mixing with a spatula, trowel or nylon roller. Use a spiked roller for uniform application and de-aeration. On highly absorbent substrates, an additional coat or a fully broadcast anti-abrasion coat is recommended to seal the substrate and prevent absorption of subsequent coats. Broadcast 0.8 kg/m² of quartz sand (0.3-0.8 mm) onto the fresh coat for optimum adhesion. This is mandatory if the next coat will be applied more than 24 hours later. Apply two coats on damp substrates. Only the second coat may be broadcast with sand.

Antiabrasion coats:

C-GUARD® EP 152 1.0 kg

C-GUARD® SAND 0.5 - 0.8 kg

Premix component A before adding sand. The amount of sand depends on the desired finish. Apply with a notched trowel or a metal or plastic float. Adjust the mixture viscosity to the substrate's absorbency so the material can penetrate the substrate.

Air and substrate temperatures must not be below 12°C and relative humidity must not exceed 75%. The temperature difference between air and substrate must be less than 3°C to avoid disrupting drying. Dew-point conditions can affect adhesion and drying and cause spots on the surface. Drying times refer to 20°C; lower temperatures extend, and higher temperatures shorten, drying time and pot life.

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

- 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 harmonized European Standard EN 13813 "Screed material and floor screeds - Screed materials - Properties and requirements" specifies requirements for screed materials for use in floor construction internally.

	
Chemcolor Sevnica d.o.o. Dolnje Brezovo 35 8290 Sevnica-SLO	
EN 13813-SR-B2.0-AR0.5	
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:	NPD
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.