

CR 100



Polymer modified 2-K protective coating and waterproofing slurry

CHARACTERISTICS

- ▶ waterproof
- ▶ water vapor permeable
- ▶ seals hairline cracks in the concrete structure
- ▶ strong reduction of capillary absorption of water
- ▶ protects standard concrete structure
- ▶ can be applied by brush, trowel or sprayed
- ▶ resistant to negative water pressure
- ▶ for drinking water tanks
- ▶ to smoothen, uniform and protect surface after concrete repair
- ▶ frost resistant
- ▶ cooperates with the sealing tape



waterproofing



concrete protection

SCOPE OF USE

CR 100 can be used on cementitious substrates that are ready for coating and non-shrinking, non-deformable, and salt-free e.g.:

- Structurally dense brickwork that is flush with the adjacent areas and has flush joints
- Concrete, cementitious plaster and composite screeds.

Waterproofing

CR 100 is used on the horizontal and vertical surfaces of buildings, structural components and tanks

- for waterproofing against water loads
 - for waterproofing monolithic water tanks from inside as well as drinking water tanks and swimming pools with a water depth of $\leq 7,5$ m
 - for subsequent waterproofing on the negative side
- Ceresit CR 100 seals static hair line cracks up to 0,2 mm



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in the concrete structure. Not suitable for larger or dynamic cracks. CR 100 allows a proper cooperation with Ceresit CL 152 Sealing Tape on the connection between walls and floor and expansion joints. In case of possible mechanical loads operating on the slurry, such as pedestrian traffic, the CR 100 coating should be protected. On wet basement footing, we recommend use of Ceresit CR 65. In case of horizontal waterproofing, under ceilings and foundation slabs, we recommend using fiberglass meshes (weight: 60 g/m²) between layers. To immediately stop local water leakages, Ceresit CX 1 or CX 5 can be used.

Deformable structures require the use of flexible products, such as: Ceresit CR 166, CL 50, CL 51. Additionally Ceresit CR 166 or CL 50 should be used for sealing of the terraces and surfaces with heated floor.

Concrete protection

CR 100 is perfect prepared to improve concrete surface resistance, even having different concrete qualities and structures. CR 100 passed the tests according to EN 1504-2 standard. Can be used as well as final layer on substrates without mechanical impact.

SUBSTRATE PREPARATION

The mineral substrate must be even, solid, load-bearing, clean, crack-free and free of substances that may impair adhesion. The surface must have a rough, open pored structure with good grip. All edges must be cut off or chamfered. Cove all corners with a hollow moulding of at least 3 cm radius. Repair any defects, screed over rock pockets and fill mortar joints, with Ceresit mortar products. Enlarge the cracks and fill them with cement mortar alternatively with epoxy resin. If the brickwork is uneven with numerous projections and defects, produce a levelling render made of cement mortar.

Ceresit CR 100 requires pre-wetting of the substrate before application, avoiding formation of puddles. When waterproofing wall and foundation areas indoors or outdoors, e. g. in the case of rear penetration of moisture, pre-treat the areas with CO 81 Silicifying Fluid. When waterproofing from negative side, the substrate must have sufficient mechanical strength.

APPLICATION

Consistency of the mortar should be selected depending on the application method:

- Application by brush or spraying – pour compound B (liquid) into a container, add 2.5 - 3 liters of water and add compound A (powder) whilst stirring with a low-speed drill equipped with a mixer;
- Application by trowel – pour compound B (liquid) into a container, add 1.5 - 2 liters of water and add compound A (powder) whilst stirring. The material should be stirred until it forms a homogeneous mixture, free of lumps.

Wait about 5 minutes and stir the material shortly again.

In case of spraying application (e. g. with Wagner PC 830 or PFT Swing M pump with 4 mm Ø nozzle), CR 100 should be applied in a single layer until a desired thickness is obtained.

If applied manually, the first layer of CR 100 should always be applied with a brush in abundant amount (preferably with a wide wall brush) on wet but not moist substrate, while the next layers can be applied by a trowel or with a brush. The fresh layer should be protected against drying out too quickly and direct sunlight.

The second layer should be applied to mat wet and hardened first layer. The third layer – if required – should be applied in the same way. For brush application, all next layers should be applied diagonally. Under average conditions, the next layer of CR 100 can be applied after 3 hours.

The thickness of a single layer should not exceed 2 mm and total layer thickness should not exceed 5 mm. Tools and fresh stains should be washed with water.

When hardened, the mortar can be removed only mechanically. If the material is expected to provide additional protection for reinforcement bars in a reinforced concrete structure, CR 100 should be applied also outside the protected area with an additional margin of at least 0.5 m. The CR 100 layer can be walked on after 3 days; however, even after complete drying out, the coating must not be directly exposed to heavy mechanical loads.

The applied mortar should be protected for at least 3 days from drying out too quickly, frost and precipitation. Installation of covers protecting from direct sunlight, draughts, rain and frost is recommended. Do not cure the mortar by pouring or spraying water.

PLEASE NOTE:

Protect the waterproofing coat against damages. Do not cover it with gypsum materials.

Compound A is corrosive, and the cement content results in alkaline properties of the material. Therefore protect skin and eyes. If contact occurs, rinse thoroughly with plenty of water. In case of contact with the eyes obtain medical advice. The content of chromium VI less than 2 ppm over the shelf life of the product.

Please make sure to observe the following technical information:

- CR 100 Safety Data Sheet for safety advice and disposal instructions
- Technical Data Sheets of other Ceresit products

STORAGE

Up to 12 months from manufacturing date provided it is kept in a dry place in the original package. Compound B must be protected from frost!

PACKAGING

Component A – 20 kg paper bags
Component B – 5 litre plastic canisters

TECHNICAL DATA

Base: compound A: a mixture of cement with mineral fillers and modifiers
compound B: dispersion of polymers in water

Density:
bulk density of comp. A: approx. 1.20 kg/dm³
total density of comp. B: approx. 1.00 kg/dm³
mixed product: approx. 1.60 kg/dm³

Mixing ratio:
– for brush application or spraying: 20 kg of comp. A per 5 l of comp. B plus 2.5 – 3.0 l of water
– for trowel application: 20 kg of comp. A per 5 l of comp. B plus 1.5 – 2.0 l of water

Application temperature: from +5°C to +25°C

Application time:
– for brush application or spraying: up to 1.0 hour
– for trowel application: up to 0.5 hour

Pedestrian traffic: after 3 days

Water load exposure: after 7 days

Crack bridging ability: approx. 0.2 mm

Consumption:

	Required dry thickness of CR 100	Amount of CM 100 (kg/m ²)
– moisture control (concrete protection)	1.5 mm	approx. 2.6 kg
– permeability	2.0 mm	approx. 3.5 kg
– pressured water (up to 7.5 m)	3.0 mm	approx. 5.3 kg

Pull off strength: ≥ 0.5 N/mm²

Water vapour permeability $S_p=0,20$ (1st class, < 5 m)

Permeability to CO₂ $S_p > 50$ m

Capillary absorption and permeability to water in liquid state $w < 0.1$ kg/m²·h^{0.5}

Compression strength after 28 days > 15 N/mm²

Bending strength after 28 days > 5 N/mm²

The above information, in particular recommendations for the handling and use of our products, is based on our professional knowledge and experience. As materials and conditions may vary with each intended application and thus are beyond our influence, we strongly recommend that in each case sufficient tests are conducted to check the suitability of our products for the intended application method and use. Legal liability cannot be accepted on the basis of the contents of this technical data sheet or any verbal advice given unless there is evidence of wilful intent or gross negligence on our part. This technical data sheet supersedes all previous editions.

Apart from the information given in this technical data sheet, it is also important to observe the relevant guidelines and regulations of various organizations and trade associations as well as the applicable local standards.

Works should be carried out in dry conditions, with ambient and substrate temperature from +5°C to +25°C. All data refer to the temperature of +23°C and relative air humidity of 55%. In different conditions, the material parameters can alter.



1830

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SR EN 1504-2:2005
Produse de protecție a suprafeței - acoperire (A)
Protecție la infiltrație (1.3)
Controlul umidității (2.2)
Creșterea rezistivității (8.2)
Performanța declarată prin nivele sau clase este definită de către tipul de produs pentru protecția suprafeței de beton (acoperire)

1830-CPR-0008

Caracteristici esențiale – anexele ZA.1d (1.3) și ZA.1e (2.2 și 8.2) din EN 1504-2:2004 <SR EN 1504-2:2005>	Condiții prevăzute de SR EN 1504-2:2005
Linear Shrinkage	$\leq 0,3$ %
Permeability to CO ₂	$s_p > 50$ m
Water vapour permeability	Clasa I
Capillary absorption and permeability to water	$\leq 0,1$ Kg/m ² ·h ^{0.5}
Thermal cycle	$\geq 2,0$ (1,5) N/mm ²
Chemical resistance	Fără defecte vizibile
Adhesion strength by pull-off test:	$\geq 0,8$ N/mm ²
Reaction to fire	Clasa E
Adhesion on wet concrete	Fără defecte vizibile
Dangerous substances	A se vedea nota 1 din ZA.1 și nota după figura ZA.1

Produs cu crom redus conform cu Regulamentul (CE) 1907/2006 consolidat 08.03.2016 (REACH)

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Quality for Professionals