

CR 166



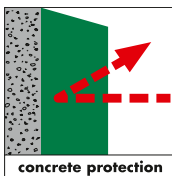
Flexible 2-K waterproofing slurry

CHARACTERISTICS

- ▶ waterproof
- ▶ flexible
- ▶ frost resistant
- ▶ strong reduction of capillary absorption of water
- ▶ increases surface protection
- ▶ covers surface cracks
- ▶ compatible with sealing tape
- ▶ can be applied by brush, trowel or sprayed
- ▶ protects reinforced & standard concrete structures



waterproofing



concrete protection

SCOPE OF USE

Waterproofing

CR 166 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 ≤ 5 m
 - for subsequent waterproofing on the positive and negative side.
- CR 166 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. Product can be used as final layer on substrates without mechanical impact.

Flooring on the separation layer, plaster without gypsum content or ceramic tiles laid with Ceresit CM mortars can be applied or installed directly on the coated surface.

For horizontal damp-proofing barrier under ceilings or on wall footing, it is recommended to embed a reinforcement fleece (60 g/m²) between layers of CR 166. To immediately stop local water leakages, Ceresit CX 1 and CX 5 may be used.



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Concrete protection

It delays carbonation and provides efficient protection from deterioration of concrete and reinforced concrete caused by weather conditions.

CR 166 passed the tests according to EN 1504-2 standard. It can be used to improve concrete surface protection of different structures and elements like internal humid areas, garages, pillars and bridges.

Hydroslide Effect

The Hydroslide Effect creates an immediate water-repellent effect, providing a stronger reduction of capillary absorption of water vs. other standard slurries.

It leads to a stronger reduction of aggressive substances dissolved in water (e.g. chlorides and de-icing salt) ensuring an excellent adhesion of subsequent layers.

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 166 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 litres 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 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, the mortar should be applied in a single layer until a desired thickness is obtained. If applied manually, the first layer of CR 166 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 166 can be applied after 3 hours. The thickness of a single layer of CR 166 should not exceed 1.5 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 166 should be applied also outside the protected area with an additional margin of at least 0.5 m. The CR 166 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

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 DIN 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.

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water. Wait 3 days from application of CR 166 before laying ceramic tiles and 5 days before application of paint coats.

PLEASE NOTE:

Protect the waterproofing coat against damage. Do not cover it with gypsums materials. When covering the waterproofed surface with tiles, always use a tile adhesive of minimum quality C2. CR 65 contains cement and produces an alkaline reaction with water. 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 life of the product.


Please make sure to observe the following technical information:

- CR 65 Safety Data Sheet for safety advice and disposal instructions
- Technical Data Sheets of other Ceresit products

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/dm ³	
total density of comp. B:	approx. 1.00 kg/dm ³	
mixed product:	approx. 1.48 kg/dm ³	
Mixing ratio:		
– for brush application or spraying:	24 kg of comp. A per 8 l of comp. B plus 2 l of water	
– for trowel application:	24 kg of comp. A per 8 l of comp. B	
Application temperature:	from +5°C to +25°C	
Application time:	up to 1.5 hours	
Pedestrian traffic:	after 3 days	
Crack bridging ability:	≥ 0,5 mm according to ZUAT-15/IV.13/2002	
Consumption:	Required thickness of CR 166	Volume of CR166 (kg/m ²)
– damp-proofing	2.0 mm	approx. 3.5
– waterproofing, sealing from pressurized water	2.5 mm	approx. 4.3

Shelf life: Up to 12 months from the production date, if stored on pallets, in dry and cool conditions, in original and undamaged packages. **Compound B must be protected from frost!**

	
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EN 1504-2:2004	
Surface protection coating for concrete Application of a coating	
Reaction to fire	F Class
Water vapour permeability	Class I, SD < 5 m
Capillary absorption and water permeability	w < 0,1 kg/m ² *h ^{0,5}
Adhesion strength by pull-off test:	Inflexible systems with no traffic load ≥ 1,0 (07)b with traffic load ≥ 2,0 (1,5)b
Dangerous substances acc. 5.3	not included

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