

DisboCRET 547

Construction mortar



Cement-bound repair mortars for reprofiling concrete surfaces under dynamic load. Suitable for application manually and by spraying; Building Material Class A 1.

Product description

Application	For reprofiling missing and broken-out areas as well as for application across the entire surface, e.g. to increase the height of the concrete cover on the vertical and horizontal concrete surfaces (applications PCC I and II). For structurally relevant repair of concrete elements, like chloride-damaged supports in multi-storey car parks and underground car parks, for example. To manufacture compound screeds.
Properties	<ul style="list-style-type: none"> ■ Simple preparation and good processing characteristics ■ Low water/cement value (W/Z) ■ Resistant to frost and de-icing salt ■ Reduces penetration of CO₂ and moisture ■ For layer thicknesses of 10 - 50 mm ■ Corresponds to mortar class M3 according to RiLi-SIB and XStat as per TR IH ■ Can be used as RM (PCC) and SRM (SPCC) ■ Meets the requirements of EN 1504-3: Structural and non-structural repair ■ Non-flammable, building material class A1 according to EN 13501-1:1:2007+A1:2009 <p>Exposure class assignment according to DIN EN 206-1 and DIN EN 1992-1-1: XO, XC 1 - XC 4, XD 1 - XD 3, XS 1 - XS 3, XF 1 - XF 4, XA 1, XALL, XDYN, XSTAT, XBW, XW 2</p>
Material base	Cement-based repair mortar
Packaging/packing unit sizes	25 kg sack
Storage	Can be stored in a dry place for at least 12 months from date of manufacture.
Technical data	<ul style="list-style-type: none"> ■ Maximum grain size: 2 mm ■ Bulk density of fresh mortar: approx. 2,200 kg/m³ ■ Set mortar properties: <i>(After 28 days)</i> Compressive strength: > 50 N/mm² bending tensile strength: > 8 N/mm² tear strength: > 2.0 N/mm² structural E module: > 30,000 N/mm²

Processing

Suitable substrates	Concrete						
Substrate preparation	Loose parts and parts that interfere with the bond, like cement slurries and contaminants amongst other things, for example must be removed down to the load-bearing using appropriate means, e.g. shot peening or similar. You must guarantee adequate tear strength (on average 1.5 N/mm ² , lowest individual value at least 1.0 N/mm ²). The edges of the broken-out areas must be chamfered to an angle of 45-60°. Derust exposed reinforcing steels to the bare metal in accordance with degree of purity 2 ½ as per DIN EN ISO 12944-4 and coat with DisboCRET 502 as corrosion protection according to the factory specification. Pre-wet the concrete substrate to capillary saturation.						
Material preparation	Put the measured amount of water apart from a residual amount into a container. Gradually add the appropriate amount of dry mortar while stirring thoroughly with a suitable mixer for about 3 minutes at a maximum of 400 rpm. Add the remaining water and mix for another two minutes until you have a homogenous mortar.						
Mixing ratio	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Dry mortar</th> <th style="width: 50%;">Water</th> </tr> </thead> <tbody> <tr> <td>1 part by weight</td> <td>0.09 - 0.12 parts by weight</td> </tr> <tr> <td>25 kg sack</td> <td>2.25 - 3.00 l</td> </tr> </tbody> </table>	Dry mortar	Water	1 part by weight	0.09 - 0.12 parts by weight	25 kg sack	2.25 - 3.00 l
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Application process	<p>Mortar as manually applied RC (PCC) concrete substitute: Apply DisboCRET 502 to the prepared concrete as bonding slurry in accordance with the factory specification. After this, use a trowel or scraper to integrate the DisboCRET 547 into the bonding slurry wet-to-wet to create a tight seal. Reprofile deep broken-out areas in layers.</p> <p>Sprayable mortar as concrete substitute SRC (SPCC): You can spray on the mortar using spiral pumps with a variable-speed gearbox that are suitable for this application (e.g. the InoBeam F 21 manufactured by the Inotec company). A bonding bridge is not necessary. Hold the spray nozzle about 50 cm from the spraying surface and as close to at right angles to it as possible. The first layer of sprayed mortar is sprayed on at high pressure to support bonding. Further sprayed layers are applied at an appropriate pumping speed with corresponding compressed air support to match the position of the respective component. You can carry out post-processing and smoothing of the surfaces immediately after completing spraying. Required air compressor: 5 m³/min, 5 bar</p> <p>Post-processing: After completing work, protect the fresh mortar surfaces from premature evaporation as a result of exposure to sunlight, high temperatures and drafts. Suitable post-processing methods include: Water mist spray, film coverings, covering with jute sheets, heat sheets or moisture-retaining coverings.</p>
Layer thickness	Further information: See "Disbon Building Protection - Processing Information"
Consumption	Min. of 10 mm, max. of 50 mm (in 2 layers)
Processing time	Approx 2.0 kg/mm/m ² .of dry mortar
Processing conditions	At 20 °C approx. 45 minutes.
	<p>Material, circulating air and substrate temperature: Min. of 5 °C, max. 35 °C.</p>
Tool cleaning	After use with water.

Notes

Hazard warnings/safety advice (at time of going to press)	Causes skin irritation. Causes severe eye irritation. May irritate the respiratory tract. Do not inhale dust or mist. Wash hands thoroughly after use. Use outdoors and in well-ventilated areas only. Wear protective gloves/eye protection. AFTER CONTACT WITH THE EYES: Rinse carefully with water for several minutes. Remove contact lenses, if worn. Continue rinsing. Immediately call a POISON INFORMATION CENTRE/doctor. In case of skin irritation: Seek medical advice/medical attention. Contains: Cement, Portland cement, chemicals. Water-based cement suspensions have an alkaline effect.
Disposal	Can be deposited after solidification in compliance with local official regulations.
Giscode	ZP1
More detailed information	Please refer to the safety data sheet. When processing the material, pay attention to the Disbon Building Protection Processing Information.

CE mark



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DIS-547-016197

EN 1504-3:2005
Concrete substitute product for structural and non-structural
repair

EN 1504-3: ZA.1a

Compressive strength	Class R4
Compressive strength	≤ 0,05%
Adhesion	≥ 2,0 MPa
Restrained shrinkage/swelling	≥ 2,0 MPa
Resistance to carbonation	NPD
Modulus of elasticity	≥ 20 GPa
Fire performance	Class A1

EN 1504-3

EN 1504-3 "Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 3: Structural and non-structural repair" specify the requirements for repair products.

Products that comply with the standard above must bear the CE mark.

Technical consultation

This publication cannot deal with all the substrates and their technical processing which can occur in practice. It will be necessary to consult with us or our sales representatives if substrates are to be processed which are not listed in this Technical Information. We will be happy to provide you with specific, detailed advice.

Technical consulting service

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This Technical Information has been compiled on the basis of state-of-the-art technology and our experience. The wide variety of substrates and building conditions does not however relieve the buyer/user of the obligation to test our materials in a professional and practical manner at their own responsibility to ensure suitability for the intended purpose under the respective building conditions.

Only the latest version of the Technical Information is valid. If necessary, please visit www.disbon.de to check that this version is up-to-date.

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