

# Disbocret® 502 Protec plus

Polymer-modified, cement-bound anticorrosive and adhesion promoting coating for concrete repairs.



## Product Description

Field of Application	Protective coating for prevention of corrosive activity to exposed and derusted metal reinforcing rods (rebar steel). Bonding slurry to promote adhesion of Disbocret® repair mortars and concrete.
Material Properties	<ul style="list-style-type: none"> <li>■ Anticorrosive coating and bonding bridge in one product.</li> <li>■ Easy preparation: just mix with water.</li> <li>■ Excellent application characteristics.</li> <li>■ Short waiting period between coatings.</li> <li>■ Applicable to moist substrates.</li> <li>■ Frost-resistant, de-icing salt resistant.</li> <li>■ Excellent adhesion on all types of concrete.</li> <li>■ Meets the requirements of EN 1504-7: Corrosion prevention of concrete reinforcement.</li> </ul> <p>Tested in accordance with TL/TP BE-PCC of ZTV-ING as a repair system, in combination with Disbocret® 544 PCC I-Grobmörtel (coarse mortar), Disbocret® 545 PCC II-Feinmörtel (fine mortar) and Disbocret® 548 SPCC-Mörtel (mortar). German general appraisal certificate is available.</p>
Material Base / Vehicle	Polymer-modified cement mortar.
Packaging/Package Size	10 kg bucket, 25 kg bag
Storage	Keep in a dry place. Minimum shelf life: 9 months from date of manufacture, low chromate content: 9 months.
Technical Data	<ul style="list-style-type: none"> <li>■ Apparent density of green mortar: approx. 2,100 kg/m<sup>3</sup></li> <li>■ Adesive tensile strength: 28 d &gt; 1.5 N/mm<sup>2</sup></li> </ul>

## Application


Suitable Substrates	Reinforcing (armouring/concrete) steel and concrete. The adhesive tensile (pull-off) strength of the substrate must be 1.5 N/mm <sup>2</sup> , on an average, with a minimum single/individual value of 1.0 N/mm <sup>2</sup> .
Substrate Preparation	<p>Derust reinforcing steel (steel rods) according to industry standard DIN EN ISO 12944-4 (substitution of German DIN 55 928, part 4) or ISO 8501-1, degree of surface purity Sa 2 ½. Derusted (descaled) steel surfaces must be free of dust and fat/grease.</p> <p>Concrete must be sound/stable and clean. Brittle or loose concrete, reinforced concrete containing corrosive substances, e.g. chlorides, must also be thoroughly removed by suitable means, along with any remnants of paint, oils or release/separating agents (formwork oil residues). In the same way, surface laitance should be removed using suitable means. This should be removed to such a depth that the following bonding slurry and the subsequent repair mortar will find sufficient adhesion to the treated surface.</p> <p>The edges of spalled or damaged areas must be chamfered between 45° to 60°. Substrates must be pre-wetted; care must be taken to ensure that most of the moisture has been absorbed to obtain a flat moist surface aspect before the bonding slurry is applied.</p>
Preparation of Material	Pour measured quantity of tap (potable) water into a mixing vessel. While stirring with a suitable low-speed paddle mixer (agitator; max. 400 rpm), add the corresponding quantity of dry mortar gradually. Keep up stirring for approx. 3 minutes until a homogeneous, lump-free and brushable slurry of applicable consistency is achieved.

Mixing Ratio	<table border="1"> <tr> <th colspan="2">For use as anti-corrosive protection:</th> </tr> <tr> <td><b>Dry mortar</b> 1 part by weight 25 kg bag 10 kg bucket</td> <td><b>Water</b> 0.16 part by weight 4.0 l 1.6 l</td> </tr> <tr> <th colspan="2">For use as bonding bridge:</th> </tr> <tr> <td><b>Dry mortar</b> 1 part by weight 25 kg bag 10 kg bucket</td> <td><b>Water</b> 0.18 part by weight 4.5 l 1.8 l</td> </tr> </table>	For use as anti-corrosive protection:		<b>Dry mortar</b> 1 part by weight 25 kg bag 10 kg bucket	<b>Water</b> 0.16 part by weight 4.0 l 1.6 l	For use as bonding bridge:		<b>Dry mortar</b> 1 part by weight 25 kg bag 10 kg bucket	<b>Water</b> 0.18 part by weight 4.5 l 1.8 l
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<b>Dry mortar</b> 1 part by weight 25 kg bag 10 kg bucket	<b>Water</b> 0.18 part by weight 4.5 l 1.8 l								
Method of Application	<p><b>As anti-corrosive protection:</b> The first antirust coating is liberally applied by brush immediately after having finished with derusting and cleaning. Apply the second coat after approx. 4 hours to max. 48 hours. The reinforcing concrete bars (steel rods) must be completely coated. After thorough curing of the second coat (approx. 24 hours), the following bonding slurry can be applied.</p> <p><b>As bonding slurry:</b> Brush-apply mixed material intensely and evenly onto the prepared substrate, filling all pores. The following coat of repointing mortar has to be applied wet-on-wet. Note: If the coat of bonding slurry binds prematurely before the following repair mortar can be applied, e.g. in case of work stoppage, then the bonding slurry must always be allowed to harden and the procedure must be repeated.</p>								
Layer Thickness	Anti-corrosive protection coat: min. 1 mm.								
Consumption	<p><b>Anti-corrosive protection:</b> Approx. 160 g/m of dry mortar per coat, Ø 16 mm.</p> <p><b>Bonding slurry:</b> Approx. 1.6 to 2.0 kg/m<sup>2</sup> of dry mortar, depending on the type of substrate.</p>								
Workability	Approx. 60 minutes at 20 °C.								
Application Conditions	<b>Material, substrate and ambient air temperature:</b> Min. 5 °C, max. 35 °C.								
Tool Cleaning	Immediately after use with water.								

## Advice

German Certificates	<ul style="list-style-type: none"> <li>■ 4-1081 Testing acc. to ZTV-ING, TL/TP, BE-PCC, use case PCC I, Polymer-Institute, Flörsheim</li> <li>■ 4-1103 General appraisal certificate No. P 5633/08-334, Polymer-Institute, Flörsheim</li> <li>■ 4-1083 Testing acc. to ZTV-ING, TL/TP, BE-SPCC, P 2256/00-92, Polymer-Institute, Flörsheim</li> </ul>
Special Risks (Hazard Note) / Safety Advice (Status as at Date of Publication)	<p>Restricted to professional users. Causes skin irritation. Causes serious eye damage. May cause respiratory irritation. Do not breathe dust or mist. Do not get in eyes, on skin, or on clothing. Use personal protective equipment as required. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention. IF SWALLOWED: rinse mouth. Do NOT induce vomiting.</p>
Disposal	<p>Materials and all related packaging must be disposed of in a safe way in accordance with the full requirements of the local authorities. Particular attention should be paid to removing wastage from site in compliance with standard construction site procedures. In Germany: Only completely empty bags and containers should be handed in for recycling. Dispose hardened material residues as a mixture of construction and demolition site waste.</p>
EU limit value for the VOC content	of this product (category A/c): max. 40 g/l (2010). This product contains < 1 g/l VOC.
Giscode	ZP 1 (Germany)
Further Details	See Material Safety Data Sheet (MSDS). Follow the application references while applying our materials.

CE Labelling


1119
Disbon GmbH Roßdörfer Straße 50, D-64372 Ober-Ramstadt
<b>09</b>
DIS-502-004157
<b>EN 1504-7:2006</b> Product for anti-corrosion coating of concrete reinforcement
<b>EN 1504-7: ZA.1a</b>

### EN 1504-7

CE labelling is based on EN 1504-7 "Products and systems for protection and repair of concrete load bearing structures – Part 7: Anti-corrosion protective coating for concrete reinforcement steel", defining the requirements for the steel protective coating products.

Products matching the above mentioned standards are to be labelled with the CE mark. Corresponding information (performance record according to BauPVO) is available on our website [www.disbon.de](http://www.disbon.de)

Additional engineer standards are effective for the use in Germany in structural safety relevant areas. Conformity is documented by the Ü sign (Überwachung = supervision) on the packaging (bag/container). Established by documented evidence of conformity 2+ with controls and tests on the part of the manufacturer and notified bodys.

Technical Assistance

As it is impossible to list herein the wide variety of substrates and their specific problems, please request our technical assistance in case of queries. As it is impossible to list herein the wide variety of substrates and their specific problems, please request our technical assistance in case of queries.

Customer Service Centre

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## Technical Information No.502 · Issue: July 2016

All suggestions and application instructions herein are based on our latest technical experience. Due to the wide variety of individual project conditions, we cannot be held responsible for their content. These instructions do not release the purchaser/ applicator from his responsibility to determine the suitability of the product in consideration of the project characteristics. These instructions are to be considered void when a new edition is released. Our general conditions of sale and delivery in their latest edition apply. This document is a translation of our German Technical Information No.502 · Disbocrete® 502 Protec plus · Issued: March 2016