

Disbocret® 518

Flex-Finish

- Cold elastic, crack covering and UV-curing protective coating. Specifically suitable for concrete – also for concrete surfaces with existing coating.
- Approved to ZTV-ING, TL/TP OS-D II.



Product Description

Application

Protective coating against penetration of pollutants and water into new, existing and repaired concrete surfaces. Used for covering hairline cracks and separating cracks.

Properties

- Bridges surface cracks of ≤ 0.3 mm.
- Equalises dynamic cracks ≤ 0.1 mm.
- Crack covering class I_T (successfully tested at -20 °C and dynamic stress).
- Good application characteristics.
- Weatherproof.
- Alkali resistant.
- Resistant to UV-light exposure.
- Water vapour permeable.
- Reduces the effects of CO₂ and SO₂ exposure.
- Minimal natural texture.
- External and internal quality control.

Tested in combination with Disbocret® 505 Feinspachtel, Disbocret® 510 Füllschicht or Disbocret® 519 PCC-Flex-Schlämme as OS-D II in accordance with TL/TP of ZTV-ING. The German general site inspection test certificate is available.

Material Base

Pure acrylate dispersion.

Packaging

15 lit. plastic bucket
12 lit. bucket (ColorExpress)

Colour

White.
Special shades are available on request.
12 lit. packaging can be tinted via ColorExpress tinting machines in hues of the Caparol 3D plus System for building paints.

Gloss Level

Silk-matt to DIN EN 1062.

Storage

Store cool, dry and frost-free. Original, tightly closed containers have a shelf life of minimum 1 year.

Technical Data

Density	approx. 1.4 g/cm ³
Solid-content	approx. 68 % by weight
Dry film thickness	approx. 50 µm/100 ml/m ²
Resistance-count for diffusion	
µ H ₂ O	1,500
µ CO ₂	250,000
Diffusion-equivalent air film thickness at 300 µm dry film thickness	
s _d H ₂ O	approx. 0.45 m
s _d CO ₂	approx. 75 m
Water absorption coefficient	
W ₂₄	< 0.033 kg/ (m ² · h ^{0.5})

Application

Suitable Substrates

Lightweight, normal and heavy concrete, Disbocret® fillers/surfacers, mineral renders/plasters and existing coatings. Cementitious flow mortars, ameliorated with synthetic resin, must be checked for compatibility (trial application, if necessary). The average adhesive tensile strength of the substrate must be ≥ 1.0 N/mm², the lowest individual value being 0.5 N/mm².

Substrate Preparation

1. Mineral substrates
The substrate must be clean and free from loose material that may prevent good adhesion. Separating substances, e.g. oils or fats/greases, must be removed by suitable methods. Highly polluted substrates, e.g. infested with moss and algae, as well as vitreous, unsound cement laitance must be removed using e.g. suitable blasting equipment and solid medium.
The substrate must be free of corrosive substances, e.g. chlorides.

2. Coated substrates

Check existing paint coatings for adequate adhesion to the substrate. Remove non-adherent existing coatings, e.g. using suitable blasting medium and equipment. Clean sound, adherent, non-chalking existing paint coatings with water jet or steam jet. As there may be different types of existing coatings, the planned coating system must be checked in advance for functionality by a trial application.

3. Damages, pores and shrink holes

To achieve a uniform and sufficiently thick protective coat, all spallings, cracks, pores, unevenness, shrink holes and surface roughness must be thoroughly repaired with adequate Disbocret® system materials in accordance with the manufacturer's recommendations.

4. Cracks

If necessary, cracks (≥ 0.3 mm) should be treated as joints to DIN 18 540.

Preparation

Disbocret® 518 is ready for use, but should be stirred before application. The material can be thinned up to 5% with tap (potable) water, depending on the used application method, weather conditions or substrate requirements. Adjust to spraying consistency by adding max. 1-2% of tap water, if necessary.

Method of Application

Disbocret® 518 can be applied by brush, roller or spraying equipment. During the airless spray application, the filter should be cleaned intermittently, in order to avoid clogging with fillers.
Nozzle size: 0.021 – 0.026 inch.
Follow VOB, part C (DIN 18 363, paragraph 3.1.3).
The material should not be applied in direct sunlight or on sun-heated substrates, during strong wind, fog or rain, etc.
Protective tarpaulins should be used, if necessary.

System of Application

Substrate	Priming coat
Absorbent mineral substrates (e.g. concrete, renders/plasters)	Disboxan 450 Fassadenschutz
Partial surfacing with Disbocret® 506 Planspachtel	CapaSol LF Concentrate 1 : 2 diluted with tap water
Complete surfacing with Disbocret® 505 Feinspachtel	not applicable
Surfacing with Disbocret® 510 Füllschicht	not applicable
Sound, rigid existing coating	Capagrund Universal
Sound, adherent enamel coating	Disbon 481 EP-Uniprimer

Prime horizontal, uncoated frontal surfaces with Disboxid 433 EP-Grund BF and treat (sprinkle/cover) with silica/quartz sand Disboxid 942 Mischquarz. Subsequently apply one intermediate and one finishing coat.

Layer Thickness

For an efficient surface protection minimum 200 µm of dry film thickness is required. If a surface protection system has to be applied in accordance with ZTV-ING, then min. 300 µm is essential. A 300 µm dry film thickness can only be achieved by applying three layers, as usual for coating materials under normal conditions in practice.

Consumption

Approx. 200 – 250 ml/m² per coat.

Application Temperature

Min. 5 °C and max. 40 °C for the material, substrate and ambient air.

Drying Time

At 20 °C and 65% relative humidity dust-dry and rainproof after approx. 12 hours. Recoatable after approx. 24 hours.

Tool Cleaning

Immediately after use with water.

Advice

Certificates

- 4-1088 Testing to ZTV-ING, TL/TP, OS B, P 2134/00-74
Polymer-Institute, Flörsheim
- 4-1089 Testing to ZTV-ING, TL/TP, OS D II, P 2134/00-77
Polymer-Institute, Flörsheim
- 4-1091 Testing to ZTV-ING, TL/TP, OS D II, P 2134/01-111
Polymer-Institute, Flörsheim
- 4-1090 Testing of water vapour permeability and adhesive strength
Polymer-Institute, Flörsheim

Please Note (Status as at November 2007)

Keep out of reach of children. In case of contact with eyes, rinse immediately with plenty of water. Do not empty into drains, water courses or onto the ground. Material Safety Data Sheet for professional users available on request.

Disposal

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 emptied containers should be given for recycling. Dispose containers with residues of liquid material as remnants of water-based paints and dried material as hardened paints waste or via domestic waste.

EU limit value for the VOC content of this product (category A/c):
max. 75 g/l (2007) / 40 g/l (2010).
This product contains max. 25 g/l of VOC.

German Product Code Paints & Enamels: M-DF 02

Further Details:

See Material Safety Data Sheets. Observe our special application indications for applying Disbon materials.



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EN 1504-2

Materials for surface protection
Coating

Cross-cut test	≤ GT2
CO ₂ permeability	sd-value > 50 m
Water vapour permeability	Class I, < 5 m
Capillary water absorption and water permeability	w < 0.1 kg/(m ² · h ^{0.5})
Pull-trial, without traffic loads	≥ 0.8 N/mm ²
Temperature cycling tolerance	≥ 0.8 N/mm ²
Crack covering (bridging) capacity	A2 (-20 °C)
Fire behaviour	B2
Artificial weathering	no visible faults

¹⁾ The last two figures of the year attaching the CE labelling.


CE Labelling

CE labelling is based on DIN EN 1504-2 "Products and systems for protection and repair of concrete load-bearing structures; definitions, requirements, quality control and evaluation of conformity, Part 2: Protective coating systems for concrete".

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.

Customer Service Centre:

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International Distribution:

Please see www.caparol.com

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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. 518 Disbon 518 Flex-Finish, issued: October 2007

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