Disbon 404 Acryl-BodenSiegel

Acrylic Floor Sealer · Carbon fibre-reinforced, one-component, methacrylate-based coating for use on floor spaces and oil collecting basins (spill sumps) - interior and exterior. Emission-minimised, technically controlled and supervised (TÜV)

Product Description

Field of Application

Protective coating for interior and exterior mineral floor spaces. Also suitable for use on hard asphalt screed in the interiors, subjected to normal pedestrian traffic loads. Certificated as coating for collecting basins (spill sumps) and areas within closed buildings. Exteriors used for the storage of fuel oil (heating oil) type EL, unused motor and gear oils, transformer oil (insulating oil) and hydraulic oil.

Material Properties

- High impact strength
- Very good cleanability
- Very good abrasion resistance
- Low wear
- UV resistant
- Weather-resistant
- Elastic
- Oil-resistant
- Ecologically compatible, because water-thinnable (dilutable)

Tested according to AgBB testing criteria for VOC emissions from building materials used for interior spaces. The criteria of AgBB (Ausschuss zur gesundheitlichen Bewertung von Bauprodukten · Commission for the sanitary evaluation of building materials) are elaborated by the ecological and sanitary authorities for the use of building materials in ªdelicate/sensitive´ areas, as e.g. recreation rooms.

Material Base / Vehicle

Methacrylate dispersion.

Packaging/Package Size

- **Standard:**
  2.5 litres, 5 litres and 12.5 litres plastic bucket
- **ColorExpress:**
  2.5 litres, 7.5 litres and 12.5 litres plastic bucket

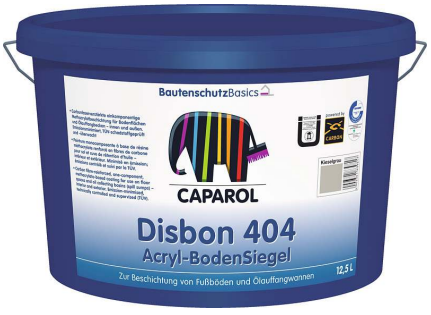
Colours

- **Standard:**
  12.5 litres plastic bucket: Light grey, gravel grey, concrete grey, stone grey 2.5 litres and 5 litres plastic bucket: Light grey, gravel grey, stone grey Special tints are available on request.
- **ColorExpress:**
  Over 28,000 shades are available in the ColorExpress stations. Exclusive colour schemes are possible due to the shades of FloorColor collection. Depending on the shade, base 1, base 2 or base 3 can be mixed via ColorExpress stations.

Discolouration and chalking effects may occur caused by weathering and UV light exposure. The pigmentation in e.g. coffee, red wine or leaves (organic dyestuffs) and various chemicals, e. g. disinfectants, acids, etc., may cause discolouration. The functional capability of the coating will not be affected by these changes.

Gloss Level

Semi-gloss (silk flat)



Storage

Cool, dry, and frost-free.
Tightly closed, original container has a minimum shelf life of two years. If temperatures are low, the material should be stored at 20 °C before application.

Technical Data

■ Density:	approx. 1.3 g/cm^3
■ Dry film thickness:	approx. 45 µm/100 ml/m^2
■ Resistance-count for diffusion µ (H_2O):	approx. 2,500
■ Abrasion to Taber (CS 10/1000 U/1000 g):	190 mg/30 cm^2
■ Ultimate elongation to DIN 53504:	approx. 40 %

Application

Suitable Substrates

Mineral substrates, e.g. concrete, cement-based composition floor/screed, render/plaster, masonry, hard asphalt screeds (only indoors) and floorages with existing unplasticized, adherent paint coatings.
The substrate must be sound, dimensionally stable, solid, and free from brittle substances, release agents, dust, oils, fats/greases, rubber abrasion (skid marks) and all materials that may prevent good adhesion. Check cementitious, synthetic resin improved flow mortars for compatibility by a trial coating, if necessary. The minimum adhesive tensile strength must be 1.0 N/mm2. Substrates must have achieved their equivalent humidity:
Concrete and cement-based composition-floor (screed): max. 5 % by weight
Anhydrite screed: max. 1 % by weight
Magnesite screed: 2–4 % by weight
Xylolithe (Magnesium Oxychloride) screed: 4–8 % by weight
Hard asphalt screeds can only be used for interior application. They have to correspond at least to hardness class IC 15 and should not warp on the given temperature and mechanical load conditions. All substrates must have a sufficient incline in order to exclude stagnant water.

Substrate Preparation

Prepare substrates by suitable means in order to fulfil the above mentioned requirements. Remove all loose existing coatings or unsound paint coatings.
Clean adherent one-component coatings and sound, adherent existing dispersion paint coatings (must be unplasticized). Clean or roughen rigid, sound existing two-component coatings or prime with Disbon 481 EP-Uniprimer. Fill substrate defects and spallings flush with the surface using DisbocretÆ PCC mortars.

Preparation of Material

Disbon 404 is ready to use. Stir thoroughly before application.

Method of Application

The material may be applied by paint brush, roller or spraying equipment (airless device, no filter, nozzle size 0.013 to 0.015 inch).

Surface Coating System

Mineral Substrates

Priming Coat (interior)
Apply Disbon 404 Acrylic Floor Sealer diluted with 30 % of tap (potable) water. A priming coat on hard asphalt screeds is not necessary (may be omitted).

Priming Coat (exterior)
Apply CapaSol LF Concentrate, diluted in a 1 : 2 ratio (parts by volume) with tap water or apply undiluted OptiGrund.

Coating
Crack-free substrates Apply two coats of undiluted Disbon 404 Acrylic Floor Sealer.

Cracked substrates
Apply one coat. Embed suitable fabric (e.g. firm Kobau, glass fabric 5/5, with an overlap of min. 5 cm), in the wet coating. Then apply an intermediate coat. Isolated cracks can be covered in their run with fabric strips (15–20 cm wide). Allow the intermediate coat to dry thoroughly and apply one finishing coat.

Coating of oil collecting basins (spill sumps)
When used for coating oil collecting basins (safety basins in the area of oil storage tanks / secondary containment area), minimum one priming coat and two undiluted finishing coats are essential. Minimum consumption of 950 ml/m≤ must be applied. Apply successive coats in different colours, in order to avoid bare patches. In order to make the individual coats noticeable, a 1 cm wide strip of 2nd and 3rd coats must be left visible. After completion of the coatings, a label should be put in sight, stating the name of coating material, applicator's name and date of application. This type of label can be ordered from Caparol.

Advice: Do not use ColorExpress colours for the coating of oil collecting basins (spill sumps).

Alternative Surface Design
Strewing/scattering chips
Scatter Disboxid 948 Color-Chips over the fresh coating and seal the surface, either smooth or slip resistant.

Smooth top-sealing with transparent sealer
Apply Disbothan 446 PU-Klarschicht for exteriors or for interiors Disbon 405 Klarsiegel onto the surface.

Anti-skid treatment / top-sealing
Exterior surfaces:
Disbothan 446 PU-Klarschicht: 100 % by weight
Disbon 947 SlideStop Rough: 10% by weight
Disbocolor 499 Thinner: 5 - 10 % by weight
In interiors apply:
Disbon 405 Klarsiegel: 100 % by weight
Disbon 947 SlideStop Fine: 3 % by weight

Official Prescriptions for the Coating of Oil Collecting Basins in Oil Storage Areas
Field of Application
The material is suitable for coating concrete, renders/plasters and screed on safety basins in the area of oil storage tanks (secondary containment area) within closed building and exteriors for the storage of

- fuel oil (heating oil) type EL to DIN 51 603-1
- unused motor oils
- unused vehicle gear (transmission) oils
- mixtures of saturated and aromatic hydrocarbons with aromatics content < 20% by weight, flashpoint <55 °C, e.g. transformer insulating oils and hydraulic oils like Shell Diala oil D of Deutsche Shell AG and the following hydraulic oils: NUTO H 46 of Esso AG, Shell Tellus oil 46 of Deutsche Shell AG, Aral Vitam GF 46 of Aral AG, Energol HLP-HM 46 of BP Oil Deutschland GmbH.

Follow the requirements of general appraisal certificate when applying the material in the field of oil collecting basins and areas. The general appraisal certificate is available by the manufacturer.

Structural Requirements:
Suitable measures / design features must be taken to prevent settlement or shrinkage cracks in the walls or the bottom of the oil collecting basins or chambers, e.g. indentations, reinforcements, anchors, etc. The pressure of liquid must be taken into consideration. There must be no expansion joints in or around collecting basins and chambers/areas. Concrete, renders/plasters and cementbased composition floors (screed) must be sound and free from defects. Inner edges must be executed/formed as grooves (concave fillets).
Rendering/plasters and cement-based composition floors (screed) must adhere firmly to the loadbearing structures, surrounding chamber walls and the base/bottom. Their surface must not be smoothed with a steel trowel, but has to be rubbed with a wooden float. Subsequent powdering with cement is not permitted. Laying pipes, etc., in the area of the max. possible fluid/liquid level is prohibited.
Surfaces of concrete or masonry not complying with the above mentioned requirements must receive a firmly adherent, sound coat of cement plasterwork. Concrete, renders/plasters or screed surfaces should be dry and must have aged for at least 28 days before any application. The following norms and regulations are applicable as guidelines for the quality of substrates:

- Concrete: DIN EN 206-1: 2001-07, DIN 1045-2: 2001-07, DIN 1045-3: 2001-07
- Render/plaster: DIN EN 998-1: 2003-09 and DIN V 18 550: 2005-04, - render mortar class/ group CS IV or PIII
- Cement-based composition floor (screed): DIN EN 13813: 2003-01 and DIN 18 560-3: 2006-03, table 1 - strength class C25/F4 in combination with DIN 18 560-1: 2004-04, paragraph 7.5

Water seepage from the back side of coating must be avoided. Structural elements must be properly sealed as per the relevant norms avoiding the penetration of ground water and seepage water.
In Germany: Follow DIN 18195-4: 200-08 Sealing of buildings, sealing against soil moisture (capillary water, retained water) and not accumulating leakage water (seepage) at base plates and walls, rating and specification.
The material has only to be applied under the condition of a construction/substrate which fulfils the above mentioned structural requirements (all current standards and guidelines). Otherwise the intended purpose cannot be achieved.

Advice: The coating is not resistant to Bio diesel.

Consumption

Treatment of Floors	
Priming Coat (interior)	
Disbon 404 Acrylic Floor Sealer	approx. 150 - 200 ml/m² diluted 30% with tap water
Priming Coat (exterior)	
CapaSol LF Concentrate	approx. 150 - 200 ml/m² 1 : 2 parts by volume diluted with tap (potable) water
Coating	
Disbon 404 Acrylic Floor Sealer	min. 2 x 200 ml/m² more consumption for fabric-embedding
Surface Designing	
Chips to be strewn Disboxid 948 Color-Chips	approx. 30 g/m²
Smooth top-sealing (exterior) Disbothan 446 PU-Klarschicht	approx. 150 ml/m²
Smooth top-sealing (interior) Disbon 405 Klarsiegel	approx. 130 ml/m²
Anti-skid top-sealing (exterior) - with quartz sand Disbothan 446 PU-Klarschicht Disboxid 942 Mischquartz Disbocolor 499 Thinner	approx. 150 ml/m² approx. 15 g/m² approx. 8 - 15 ml/m²
Anti-skid treatment, top-sealing (interior) Disbon 405 Klarsiegel Disbon 947 SlideStop Fine	approx. 130 ml/m² approx. 4 g/m²
Coating of Oil Collecting Basins	
First coat	approx. 150 - 200 ml/m² diluted 30% with tap water
Intermediate coat	approx. 400 ml/m² undiluted
Finishing coat	approx. 400 ml/m² undiluted

Determine the exact rate of consumption by a trial application on site.

Application Conditions

Temperature of Material, Ambient Air and Substrate:
Min. 5 °C, max 30 °C. Relative humidity must not exceed 80 %. The substrate temperature should always be 3 °C above the dew point temperature.

Waiting Time

The waiting time between work steps should be minimum 5 hours at 20°C, coatings according AgBB minimum 24 hours. If applied with Disbon 404 Acryl-BodenSiegel and Disbon 405 Klarsiegel, then recoatable after approx. 5 hours, and with Disbothan 446 PU-Klarschicht after approx. 1 day. Higher temperatures shorten and lower temperatures extend this time period.

Drying/Drying Time

At 20 °C and 60 % relative humidity, walkable after approx. 5 hours. Ready for mechanical loads after approx. 3 days. Lower temperatures extend the drying time.

Tool Cleaning

Immediately after use or during longer breaks, clean with water or warm soapy water.

Advice

German Certificates	■ 1-1077 General appraisal certificate for the coating of oil collecting basins and areas · MPA Karlsruhe ■ 1-1157 Anti-slip testing R 10 Professional Association Institute, St. Augustin ■ 1-1158 Anti-slip testing R 10 Professional Association Institute, St. Augustin
Please Note (Status as at Date of Publication)	Keep out of the reach of children. In case of spray application: Do not breathe spray dust. Provide for sufficient ventilation during and after the application. In case of contact with eyes or skin, rinse immediately with plenty of water. Do not empty into drains, water courses and onto the ground. Material Safety Data Sheets for professional users are available on request. Clean tools immediately after use with water and soap. Material Safety Data Sheet is available on request for professional users.
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 made to removing wastage from site in compliance with standard construction site procedures. In Germany: Only completely emptied containers should be given for recycling. Containers with residues of material must be delivered to a collecting point for old enamels.
EU limit value for the VOC content	of this product (category A/i): max. 140 g/l (2010). This product contains max. 50 g/l VOC.
Product Code Paints and Enamels	M-LW01
Further Details	Follow the application references while applying our materials.
CE Labelling	CE labelling is based on DIN EN 13813 "Screed mortars, screed compounds and screeds - screed mortars and screed compounds ≠ Properties and Requirements" defining the requirements for screed mortars being used for floor constructions in the interiors. The standard also includes synthetic resin coatings and sealing. Products matching the above mentioned standard are to be labelled with the CE mark. Labelling is printed on the container and in a special leaflet that can be downloaded via www.caparol.de
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. We will describe appropriate working methods, if a substrate not specified above is to be coated.
Customer Service Centre	Tel.: (+49) 0 61 54 / 71 17 10 Fax: (+49) 0 61 54 / 71 17 11 e-mail: kundenservicecenter@caparol.de International Distribution: Please see www.caparol.com

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. 404 · Disbon 404 Acryl-BodenSiegel · Issued: July 2013

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