

Disbopox 468 EP- Strukturschicht



Watery, textured, pigmented 2-component liquid epoxy resin coating for floor spaces in trade and industry.

Product Description

Field of Application

For mineral floors in industrial and commercial areas, subjected to medium mechanical stress, e.g. storage and manufacturing areas with forklift traffic, consumer markets, floors, routes. The formula of Disbopox 468 is emission-minimised and tested for harmful substances by German Technical Control Board (TÜV) and therefore the product is particularly suitable for sensitive areas such as lounges, hospitals, playschools, day-care centres, schools, etc.

Material Properties

- Minimises slipping.
- Water vapour permeable.
- Textured, has an equalising visual effect.
- Emission-minimised, tested for harmful substances by Technical Control Board (TÜV).
- General approval by the German Institute for Structural Engineering.

Tested & approved according to AgBB testing criteria for VOC emissions from building material that is used for interior work. The criteria of AgBB (**A** usschuss zur **g** esundheitlichen **B** ewertung von **B** auprodukten / Commission for the sanitary evaluation of building material) are elaborated by the ecological and sanitary authorities for the use of building material in "delicate/sensitive" areas, as e.g. lounges.

Material Base / Vehicle

Watery 2-component liquid epoxy resin

Packaging/Package Size

10 kg combined plastic packaging
40 kg packaging (base: 33.6 kg plastic hobbock, hardener: 6.4 kg tin bucket)

Colours

Pebble Grey (*Kieselgrau*), Stone Grey (*Steingrau*)
Special tints are made available on request.

Exclusive colour designing is possible with the shades of our FloorColor plus colour collection for floors. Discolouration and chalking effects may occur with 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. Scratch-marks may appear on the surface due to continued rubbing. The efficiency of the coating will not be affected by these changes.

Gloss Level

Satin-gloss (mid sheen according to DIN EN 13 300)

Storage

Keep in a cool, dry and frost-free place.
Tightly closed, original packaging has a shelf life of min. 1 year.
If temperatures are low, the material should be stored at 20 °C before application.

Technical Data

- Density: approx. 1.4 g/cm³
- Dry film thickness: approx. 36 µm/100 g/m² on an average
- Resistance-count for diffusion µ (H₂O): approx. 15,000
- Abrasion to Taber (CS 10/1000 U/1000 g): approx. 50 mg/30 cm²
- Pendulum hardness to König: approx. 110 s
- Shore hardness (A/D): approx. D 80



Chemical resistance

Chemical Resistance in Accordance with DIN 53 168 at 20 °C:	
	7 days
Caustic soda 10 % solution	+
Ammonia 25 % solution	+
Distilled water	+
Common salt solution, saturated	+
Ethanol 40 % solution	+
Test liquid 5* Alcohol (methanol: max. 48 % by vol.), glycol ether	+
Test liquid 4* All hydrocarbons and mixtures with content of benzene (max. 5 % by volume)	+
Coffee	+
Petrol (Gasoline) DIN 51 600	+
Motor oil	+
Legend: + = resistant * Corresponding to the test principles for protection of waters as per DIBt.	

Application

Suitable Substrates

All types of mineral substrates (e.g. concrete, cement screed, anhydrite screed) and hard asphalt screed indoors.

The substrate must be sound, dimensionally stable, solid and free from all substances that may prevent good adhesion, e.g. loose/brittle materials, dust, oils, fats/greases or rubber abrasion (skidmarks). Cementitious flow mortars, ameliorated with synthetic resin, must be checked for compatibility by trial application.

Hard-aggregate floor screed and all surfaces with a finishing treatment must thoroughly be prepared by mechanical means. Compatibility has to be checked by coating a test area, if necessary.

The average value for adhesive tensile strength must be 1.5 N/mm² - with a single minimum value of 1.0 N/mm². Substrates must have achieved their equilibrium moisture content (EMC):

Concrete and cement screed: max. 4 % by weight (CM method)

Anhydrite screed: max. 1.0 % by weight (CM method)

Testing methods for above mentioned values as per DAfStb, repair guideline part 3.

Hard asphalt screeds must match hardness class IC 15 and must not deform under existing temperature conditions and mechanical loads on site.

Other types of substrates or proceedings require a special advisory service by Disbon.

Substrate Preparation

Prepare the substrate by suitable means, e.g. ball peening, surface milling or diamond grinding method, in order to comply with the above mentioned substrate requirements.

Remove unstable, strongly soiled surfaces, e.g. contaminated with oil, fat/grease, rubber abrasion, etc., or showing chalking or vitreous surface laitance (hardened cement paste) very thoroughly by mechanical means. Remove oil stains by common concrete degreaser. Prepare existing visible marks on garage floors intensively, due to an adhesion diminishing effect of rubber abrasion, chlorides (de-icing salt), etc.

For hard asphalt screed: The aggregate must be visible for min. 75 % after having finished with preparation.

As a matter of principle: Carefully remove existing one-component paint coatings and unstable 2-component coatings.

Clean rigid epoxy coatings thoroughly and slightly sand the surface or roughen/flatten by abrasive blast cleaning to achieve a matt surface appearance. Alternatively the surface can be flattened with a sanding pad, followed by one priming coat of Disbon 481 EP-Uniprimer. Take care to avoid any remnants, care products and the like on the surface to be coated. Check for sufficient diffusion-permeability of the full surface coating system, if an existing diffusion-capable coating must be reworked.

Repair spallings and defects in the substrate with Disbocret® PCC mortars or Disboxid EP mortars, filling them flush with the surface.

Do not use any materials with silicone content in surrounding areas before and during sealing to avoid detrimental influences (surface disfunction/loss of adhesion).

Germany: Follow BEB-Arbeitsblatt (process sheet) KH-0/U* and KH2* as well as the table 2,5 of guideline "Schutz und Instandsetzung von Betonbauteilen / Protection and Repair of Concrete Elements", part 2 of "Deutscher Ausschuss für Stahlbeton / German Committee for Reinforced Concrete".

* Bundesverband Estrich und Belag e.V., 53842 Troisdorf-Oberlar, Germany

Preparation of Material	Stir the base material, then add the hardener to the base and mix intensively with a low-speed electric paddle mixer (agitator: max. 400 rpm) until a homogeneous colour shade, free of streaks, is achieved. Pour the mixture into another clean mixing vessel and continue stirring.
Mixing Ratio	Base material : hardener = 84 : 16 parts by weight
Method of Application	Apply the finishing (top) coat with a notched hard rubber scraper/wiper and then roll over crosswise with a texturing roller.
Surface Coating System	<p>Always apply wet-on-wet to obtain an even appearance. Roll over again crosswise. Large/seamless surfaces should be covered by several hands on the job; section the area to be coated, if necessary. Always use product of same batch for coating seamless surfaces.</p> <p>Priming Coat Prime mineral substrates with Disboxid 443 EP-Imprägnierung using a sealer brush, filling all pores. Prime hard asphalt screed with Disbopox 468 EP-Strukturschicht, diluted 5 - 10 % with tap (potable) water. Sufficiently stable and absorbent mineral substrates, prepared by mechanical means, can be primed with Disbopox 468 EP-Strukturschicht, diluted 5 - 10 % with tap water.</p> <p>Scratch Filler Coat (if necessary) Equalise/level semi-rough textured substrates with Disbopox 468 EP-Strukturschicht 100 % by weight Disboxid 942 Mischquarz 20 % by weight Pour the filler to the primed surface, spread evenly and draw sharply in thickness of grain size. Larger surface unevenness and burrs may visibly remain. Intermediate grinding may be necessary.</p> <p>Equalise/level uneven, roughly textured substrates with Disbopox 453 Verlaufschrift 100 % by weight Tap water 2 % by weight Disboxid 942 Mischquarz 20 % by weight Pour the filler to the primed surface, spread evenly by smoothing trowel and draw sharply in thickness of grain size.</p> <p>Finishing Coat, skid-reducing Apply undiluted Disbopox 468 EP-Strukturschicht with a notched hard rubber scraper/wiper (3 mm, triangular notches)*. Turn the tool and spread the material evenly. Then treat crosswise with a texturing roller (Moltopren® paint roller with approx. 2 mm diameter of pores).</p> <p>Finishing Coat, non-skid/slip-resistant Disbopox 468 EP-Strukturschicht 100 % by weight Disboxid 942 Mischquarz 10 % by weight Add and handle as described above.</p> <p>Surface Design Scatter Disbon 8255 FastChips to the final sealing coat.</p> <p>* The given value is only a recommendation. Size of notching depends on the abrasion resistance of scraper/wiper, temperature, degree of filling and substrate conditions.</p>

Consumption

Priming Coat Disbopox 443 EP-Imprägnierung*	approx. 200 - 250 g/m ²
Scratch Filler Application <i>Semi-rough substrates:</i> Disbopox 468 EP-Strukturschicht Disboxid 942 Mischquarz	approx. 1.3 kg/mm/m ² approx. 260 g/mm/m ²
<i>Uneven, roughly textured substrates:</i> Disbopox 453 Verlaufschiicht Disboxid 942 Mischquarz	approx. 1,500 g/mm/m ² approx. 300 g/mm/m ²
Finishing Coat, skid-reducing Disbopox 468 EP-Strukturschicht	approx. 500 - 600 g/m ²
Finishing Coat, non-skid/slip-resistant Disbopox 468 EP-Strukturschicht Disboxid 942 Mischquarz	approx. 500 g/m ² approx. 50 g/m ²
Surface Design	
Scattering Chips Disbon 8255 FastChips (R9)	approx. 30 g/m ²

Exact values are determined by trial coatings on site.

*Alternative: Disbopox 468 EP-Strukturschicht, diluted 5 - 10 % with tap (potable) water.

Workability

Processing time: Approx. 90 minutes at 20 °C and 60 % of relative humidity. The end of pot life is visibly due to a rigorous change of viscosity. Higher temperatures will shorten, lower temperatures will lengthen the pot life.

Application Conditions

Temperature Range for Material, Ambient Air and Substrate:

Min. 10 °C, max. 30 °C during application and curing.

Relative humidity must not exceed 80 %. The substrate temperature should always be at least 3 °C above the dew point temperature. Evaporation of product inherent water may cause a higher relative humidity, thus provide for sufficient ventilation during the drying phase. Draught/supply air must be avoided.

Waiting Time

Waiting times between working operations should be at least 16 hours, max. 48 hours at 20 °C. For longer periods the surface of the previous coating must be roughened/grinded. Higher temperatures will shorten and lower temperatures extend the waiting time.

Drying/Drying Time

At 20 °C and 60 % relative humidity walkable after approx. 16 hours, ready for mechanical and chemical loads after approx. 7 days. Low temperatures will lengthen the hardening process. Protect the applied material during hardening (approx. 24 hours at 20 °C) from humidity/moisture to avoid irregularities in the surface and diminished adhesion.

Tool Cleaning

Immediately after use or during long breaks with water or warm soapy water.

Advice

German Certificates

Current certificates available, on request.

Special Risks (Hazard Note) / Safety Advice (Status as at Date of Publication)

Restricted to professional users.

Base / Component A:

Causes serious eye damage. Wear protective gloves/eye protection/face protection. Do not get in eyes, on skin, or on clothing. Avoid release to the environment. Use personal protective equipment as required. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Take off contaminated clothing and wash before reuse.

Hardener / Component B:

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life with long lasting effects. Do not get in eyes, on skin, or on clothing. Avoid release to the environment. Use personal protective equipment as required. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Contains bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700), bisphenol F-(epichlorhydrin), neodecane-acid glycidil-ester.

Contains epoxy constituents. See information supplied by the manufacturer.

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 empty containers should be handed in for recycling. Residues of material: Allow base material and hardener to cure and dispose as paints waste.

EU limit value for the VOC content

of this product (category A/j): max. 140 g/l (2010). This product contains max. 30 g/l VOC.


Giscode

RE1 (Germany)

Further Details

See Material Safety Data Sheet (MSDS).
Follow the application references and advice for care and maintenance of floor spaces while applying our products.

CE Labelling

	
Disbon GmbH Roßdörfer Straße 50, D-64372 Ober-Ramstadt	
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DIS-468-004831 EN 13813:2002	
Synthetic screed/Synthetic coating for indoor use EN 13813:SR-E _{fl} -B1.5-AR1-IR4	
Reaction to fire	E _{fl}
Release of corrosive substances	SR
Water permeability	NPD
Wear resistance	≤ AR1
Adhesive tensile strength	≥ B1.5
Impact strength	≥ IR4

EN 13813

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 interiors. The standard also include synthetic resin coatings and sealing.

Products matching the above mentioned standard are to be labelled on the container with the CE mark. Corresponding information (performance record according to BauPVO) is given on our website www.disbon.de

Customer Service Centre

Tel.: +49 6154 71-71710
Fax: +49 6154 71-71711
e-mail: kundenservicecenter@caparol.de

International Distribution: Please see www.caparol.com

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