

Disbothan 449 PU-Deckschicht

Pigmented, highly elastic, moisture-curing, one-component polyurethane coating for balconies, terraces, and arcades. Solvent-based.



Product Description

Field of Application	Recoating for concrete, cement-based and hard asphalt screeds on balconies, terraces, and arcades. Renovation of rigid and elastic existing coatings on exterior surfaces. Top-sealing on Disborooft 412 Dachschicht in water-bearing areas or areas where temporary standing water is to be expected.
Product Properties	<ul style="list-style-type: none"> ■ Resistant to permanent humidity ■ Weatherproof and resistant to UV light ■ Good chemical resistance ■ Crack bridging
Product Base / Vehicle	One-component polyurethane, moisture-curing, solvent-based
Packaging/Package Size	6kg, 12 kg tin bucket
Colours	<p>Pebble grey, Light grey Special tints are available on request.</p> <p>Exclusive colour designing is possible within the colors of the FloorColor plus-Collection. Discolouration and chalking effects may occur with weathering and UV light exposure. The colorants in e.g. coffee, red wine or leaves (organic dyestuffs) and various chemicals, e.g. disinfectants, acids, etc., may cause discolouration. Proper functioning of the coating will not be affected by these changes.</p>
Gloss Level	Glossy
Storage	Kepp in a cool, dry, frost-free place. Shelf life in the original, tightly closed bucket: min. 6 month. If temperatures are low, the material should be stored at 20 °C before application.
Technical Data	<ul style="list-style-type: none"> ■ Density: approx. 1.1 g/cm³ ■ Dry film thickness: approx. 68 µm/100 g/m² ■ Shore hardness (A/D): 95/35 according to DIN 53505 ■ Ultimate elongation to DIN 53504: approx. 230 % according to DIN EN ISO 527

Application

Suitable Substrates	Concrete, cement-based screed, hard asphalt screed or compatible rigid and elastic coatings. The substrates must be sound, dimensionally stable, solid, free from all materials that may prevent good adhesion, e.g. loose materials, dust, oils, fats/greases or abraded rubber contamination (skid marks).
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Cementitious flow mortars, ameliorated with synthetic resin, must be checked for compatibility by trial application, if necessary.

The adhesive tensile (pull-off) strength of substrates must be 1.5 N/mm² on an average, with a minimum individual value of 1.0 N/mm². The substrate must have reached their equilibrium moisture content (concrete and cement screed up to 4 % by weight). Rising moisture must be avoided. Rigid asphalt screeds have to correspond at least to hardness class IC 40 and must not deform under the given conditions of temperature and mechanical stress.

Substrate Preparation

Prepare substrates by suitable means, e.g. grit blasting (shot peening) or milling, in order to meet the above mentioned requirements. Always remove existing one-component coatings and loose two-component coatings. Clean and roughen existing rigid two-component coatings and prime them with Disbon 481 EP-Uniprimer. Clean adherent elastic coatings.

Note: On principle, adhesion must be tested by a preliminary trial application, when the material has to be applied on polyester coatings

After having finished preparative work the aggregate of hard asphalt screeds must be visible for at least 75%. Repair spallings and defects in the substrate with Disbocret® PCC mortars or Disboxid EP mortars, filling them flush with the surface.

Preparation of Material

The material is ready for use. Stir well before use. Only for priming coat, the material may be thinned max. 5 - 10 %, exclusively with Disbocolor 499 thinner. An irreparable surface stickiness occurs, when other thinners are used. The material should be completely used to avoid hardened skin formation. Material that has already partially dried or thickened cannot be made useful by adding a thinner.

Method of Application

Depending on the application with suitable smoothing trowel, Mohair roller or solvent-resistant short pile roller.

Surface Coating System

Priming Coat

Mineral substrates with normal absorbency

Prime with Disbothan 449 PU Top Coating adding 5 – 10 % by weight of Disbocolor 499 thinner. Apply a relatively thin coat and spread with a Mohair roller.

Rough-textured, highly porous mineral substrates

Prime with Disboxid 420 E.MI Primer. Waiting time between worksteps: min. 16 to 24 hours.

Hard asphalt

Prime with Disbon 481 EP-Uniprimer. Waiting time between worksteps: 16 hours to max. 3 days for subsequent coatings.

Rigid existing coatings

Grind or roughen by shot-blasting and prime with Disbon 481 EP-Uniprimer.

Elastic existing coatings

Coat directly after having finished with substrate cleaning procedure.

Intermediate and Finishing Coats

Apply undiluted material generously with a short pile roller. Usually the intact coatings can be renovated by one application.

Surface Designing

Scatter Disboxid 948 Color-Chips on the freshly applied finishing coat and seal the surface with Disbothan 446 PU-Klarschicht, either smooth or anti-slip (see TI 446).

Consumption

Priming Coat

Mineral substrates with normal absorbency

Disbothan 449 PU-Deckschicht	approx. 150–200 g/m ²
Disbocolor 499 Verdünner	approx. 10–20 ml/m ²

Rough, highly porous mineral substrates

Disboxid 420 E.MI Primer	approx. 300 g/m ²
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Hard asphalt, rigid existing coatings

Disbon 481 EP-Uniprimer	approx. 150 g/m ²
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Intermediate and Finishing Coat (Topcoat)

Disbothan 449 PU-Deckschicht	approx. 400-500 g/m ² je Arbeitsgang
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Top Sealing on Disborooft 412 Dachschticht

Disbothan 449 PU-Deckschicht	approx. 400-500 g/m ²
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The exact rate of consumption should be established by a trial application on site.

Application Conditions

Material, atmospheric, and substrate temperature:
Min. 5 °C, max. of 30 °C during application and drying.

	Do not apply during imminent rain or frost, nor on sun-heated surfaces. Relative humidity must be between 35 % and 80%. The substrate temperature should always be 3 °C above the temperature of dew point.
Waiting Time	The minimum waiting time between work steps (coats) should be 6 hours at 20 °C. Higher temperatures shorten and lower temperatures extend this time period.
Drying/Drying Time	At 20 °C and 60% relative atmospheric humidity, walkable/recoatable after approx. 6 hours. Ready for mechanical loads after approx. 3 days and thoroughly hardened after approx. 7 days. Lower temperatures / lower humidity extend the drying time. During the hardening process (approx. 6 hours at 20 °C), the applied coat should be protected against moisture, as it may lead to surface faults and loss of adhesion.
Tool Cleaning	Immediately after use or during longer breaks with Disboxid 499 thinner.

Advice

Special Risks (Hazard Note) / Safety Advice (Status as at Date of Publication)	<p>For professional use only. Flammable. May cause sensitisation by skin contact. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Vapours may cause drowsiness and dizziness.</p> <p>Keep out of the reach of children. Keep container tightly closed and in a well-ventilated place. Keep away from sources of ignition - No smoking.</p> <p>Do not breathe fumes/aerosols. Do not empty into drains, Wear suitable gloves. If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label where possible. Contains aliphatic polyisocyanates. Follow information supplied by the manufacturer (Safety Data Sheet/MSDS).</p> <p>The liquid product may cause acute irritation and / or sensitization of the respiratory system. Provide adequate ventilation during and after work. Avoid breathing vapours. May not be sprayed. Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used. This information is provided by the present Material Safety Data sheet. Contains isocyanates. See information supplied by the manufacturer.</p>
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. 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/j): 500 g/l (2010). This product contains max. 400 g/l of VOC
Giscode	PU 20
Further Details	See Material Safety Data Sheet (MSDS). Follow the application recommendation and advice for care and maintenance while applying our products.
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	<p>Tel.: (+49) 0 61 54 / 71 17 10 Fax: (+49) 0 61 54 / 71 17 11 e-mail: kundenservicecenter@caparol.de</p> <p>International Distribution: Please see www.caparol.com</p>

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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. 449 · Disbathan 449 PU-Deckschicht · Issued: June 2011

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