

# DisboPUR 374 2K-PU-Beschichtung



Minimal emissions, practically odourless, rigid polyurethane coating for mineral floor and hard asphalt surfaces.

## Product Description

Field of Application	For mineral indoor floor and hard asphalt surfaces with high to excessive mechanical loads, such as workshops and production areas with forklift traffic.
Material Properties	<ul style="list-style-type: none"> <li>■ Minimal emissions, tested for harmful substances</li> <li>■ Hard-wearing</li> <li>■ Highly resistant to mechanical loads</li> <li>■ Free from lacquer wetting disturbant sustances</li> <li>■ Crack-bridging</li> </ul> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Tested according to the AgBB test criteria for VOC emissions from building products relevant for interior use. The evaluation scheme of the German Committee for Health-Related Evaluation of Building Products (AgBB) was derived by environmental and health authorities for the use of building materials in sensitive areas such as recreation rooms.</p> </div>
Material Base / Vehicle	Two-component polyurethane resin
Packaging/Package Size	30 kg container (comp. A, (mass): 24.6 kg sheet metal hobbock, comp. B (hardener): 5.4 kg metal bucket)
Colours	<p>Stone grey (approx. RAL 7030), pebble grey (approx. RAL 7032), light grey (approx. RAL 7035), agate grey (approx. RAL 7038).</p> <p>Special colours available on request.</p> <p>Any discolouration that occurs does not have a negative impact on the technical properties of the material. Organic dyes (e.g. in coffee, red wine or leaves) as well as various chemicals (e.g. disinfectants, acids, etc.) can lead to colour changes. Abrasive strain may cause scratches in the surface. The functionality is not affected by this.</p>
Gloss Level	Brilliant
Storage	<p>Cool, dry, frost-free.</p> <p>Closed original packing unit can be stored for at least nine months. At lower temperatures, keep the material at approx. 20 °C before processing.</p>
Technical Data	<ul style="list-style-type: none"> <li>■ Crack bridging according to DIN EN 1062- 7:      approx. 750 µm (at 1500 g/m<sup>2</sup>)  <span style="margin-left: 150px;">approx. 1,500 µm (at 3000 g/m<sup>2</sup>)</span></li> </ul>



- Density: approx. 1.55 g/cm<sup>3</sup>
- Dry film thickness: approx. 64 µm/100 g/m<sup>2</sup>
- Abrasion to Taber (CS 10/1000 U/1000 g): 65 mg/30 cm<sup>2</sup>
- Shore hardness (A/D): approx. D 62
- Ultimate elongation to DIN 53504: approx. 40% (at 1 mm coating thickness)

Chemical resistance

<b>Chemical resistance table according to DIN EN ISO 2812-3:2007 at 20 °C</b>	
	7 days
Acetic acid 5%	+ (D)
Hydrochloric acid 10%	+
Sulphuric acid ≤ 20%	+ (D)
Citric acid 10%	+ (D)
Ammonia 25% (solution)	+
Calcium hydroxide	+
Potassium hydroxide solution 50%	+ (D)
Sodium hydroxide 50%	+ (D)
Lactic acid 10%	+ (D)
Bio diesel	+
Sulphuric acid, 35%	+ (D)
Acetic acid 20%	+ (D)
Dist. water	+
Sodium chloride solution, saturated	+
Heating oil and diesel	+
Engine oil	+
Transformer coolants	+
Explanation of symbols: + = resistant, D = discolouration	

## Application

Suitable Substrates

Concrete and cement screed and hard asphalt screeds indoor

The substrate must be dry, load-bearing, dimensionally stable, solid, free from loose parts, dust, oils, grease, rubber abrasion and other separating substances. Cement-based, polymerenhanced levelling compounds must be checked for their coatability and, if necessary, test surfaces must be applied. The compressive strength of the substrate must be > 25 N/mm<sup>2</sup>.

The average surface tensile strength of the substrate must be 1.5 N/mm<sup>2</sup>. The smallest single value must not be below 1.0 N/mm<sup>2</sup>. The substrates must have reached their equilibrium moisture content: Concrete and cement screed: max. 4% by weight (CM method)

Test methods for the specified values must be in accordance with the Restoration Guidelines, Part 3 set out by the German Committee for Structural Concrete (DAfStb).

If moisture from the rear is expected, a non-porous priming coat must be applied with DisboXID 420 or DisboxXID 462. In this case, the average surface tensile strength of the substrate must be 2.0 N/mm<sup>2</sup>. The smallest single value must not be below 1.5 N/mm<sup>2</sup>.

Hard asphalt screeds must comply with hardness class IC 10 or IC 15 and must not deform under the given temperature conditions and mechanical loads.

Separate advice must be provided by Disbon for other types of substrates and procedures.

## Substrate Preparation

The existing substrate is prepared with low-dust blasting using abrasive material (shot blasting) and simultaneous dust extraction. The level of low strength layers that are removed is dependent on the pressure and the type and quantity of the abrasive material. Grinding is only permissible on smaller surfaces (edge processing) with the exception of diamond grinding to prepare surfaces and remove low strength layers.

Furthermore, BEB worksheet KH-0/U\*, BEB worksheet KH 3\* and Table 2.5 of the Restoration Guidelines, Part 2 set out by the German Committee for Structural Concrete (DAfStb) must be observed.

Old, rigid two-component coatings must be cleaned thoroughly and then ground or matt blasted (until the stress whitening is visible), so that no residual materials, care products or similar remain on the surface being coated.

Fill broken-out and void areas in the substrate with DisboCRET®-PCC Mörtel or DisboXID EP Mörtel to achieve a flush surface.

For hard asphalt screed, at least 75% of the admixture must be visible after preparation.

Do not use silicone-based materials in the surrounding area before or after the coating measures as they can cause surface defects.

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

## Preparation of Material

Mix comp. A (base compound), add comp. B (hardener) for the base compound and mix thoroughly with a slow-running agitator (max. 400 rpm) until a streak-free and uniform colour is achieved. Transfer the material to another container and mix again thoroughly (do not use the delivery container).

## Mixing Ratio

Comp. A (base compound) : Comp. B (hardener) = 82:18 parts by weight

## Method of Application

Depending on the application, use a smoothing trowel or suitable scraper (e.g. hard rubber toothed squeegee). Use medium pile roller on spread surfaces to maintain the rough surface.

Note: In the case of application with a toothed squeegee, the selected triangular toothing does not automatically lead to compliance with the specified consumption values.

## Surface Coating System

### Priming coat

1. Prime mineral substrates with DisboXID 462 two-component EP primer to fill the pores. Rough substrates should also be levelled with a scratch filling (primer mixed with quartz sand). Depending on the requirements,

DisboXID 2K-EP-Grundierung Premium, DisboXID 460 2K-EP-Grundierung, DisboXID 461 2K-EP-Grundierung, vorgefüllt

can be used as an alternative. Detailed information can be found in the respective TI.

2. Indoor hard asphalt surfaces must be primed free of pores using DisboPUR 374 with a smooth hard rubber slider or scraper. Rough, porous asphalt substrates can be levelled off with an additional scratch filling

DisboPUR 374: 1 part by weight,

DisboADD 942 Quarzsandmischung ( 0.1-0.4 mm): 0.5 parts by weight.

### Top coat

#### Flow coating

Pour DisboPUR 374 onto the primer and spread evenly with a hard rubber toothed squeegee. After a waiting period of approx. 10 minutes, deaerate the fresh coat with the spiked roller.

#### Levelling mortar

After transferring the material to another container, stir and add approx. 50% by weight of DisboADD 942 or DisboADD 941 Quarzsandmischung (0.06-0.3 mm). Pour the produced levelling mortar on to the priming coat within the processing time and handle in the same way as the flow coating.

Note: If special colours are used, the maximum possible amount of sand, that can be added, must be checked as it may be less than 50% by weight depending on the colour.

To ensure the surface is matter and increase anti-slip properties, approx. 20 g/m<sup>2</sup> DisboADD 955 Mattierungsmittel can be blown into the fresh coating with a hopper gun.

### Interspersion coat

After transferring the material to another container, stir and add approx. 50% by weight of DisboADD 942. Pour the produced levelling mortar onto the primer as an interspersion layer and spread evenly with a hard rubber toothed squeegee or a smooth, hard rubber scraper. Then sprinkle the fresh interspersion layer fully with DisboADD 943 Quarzsandmischung (0.4-0.8 mm) or DisboADD 944 Quarzsandmischung (0.7-1.2 mm). Once the interspersion layer has set, brush off any excess quartz sand. Pour DisboPUR 374 onto the interspersion layer and spread evenly with a hard rubber scraper and a medium pile roller.

Consumption

<b>Priming coat</b>	
<i>Mineral substrates</i>	see respective TI
<i>Indoor hard asphalt surfaces</i>	
Primer DisboPUR 374	approx. 500–1000 g/m <sup>2</sup>
<i>Scratch filling</i>	
DisboPUR 374 DisboADD 942	approx. 1.2 kg/mm/m <sup>2</sup> approx. 0.6 kg/mm/m <sup>2</sup>

<b>Flow coating with smooth surface</b>	
<i>Approx. 1 mm coating thickness (approx. 3 mm triangular teeth)*</i>	
DisboPUR 374	approx. 1.5 kg/m <sup>2</sup>
<i>Approx. 1.5 mm coating thickness (4 mm triangular teeth)*</i>	
DisboPUR 374	approx. 2.3 kg/m <sup>2</sup>

<b>Levelling mortar with smooth surface</b>	
<i>Approx. 1.5 mm coating thickness (3 mm triangular teeth)*</i>	
DisboPUR 374 DisboADD 942	approx. 1.8 kg/m <sup>2</sup> approx. 0.9 kg/m <sup>2</sup>
<i>Approx. 2 mm coating thickness (5 mm triangular teeth)*</i>	
DisboPUR 374 DisboADD 942	approx. 2.4 kg/m <sup>2</sup> approx. 1.2 kg/m <sup>2</sup>
<i>Approx. 3 mm coating thickness (7 mm triangular teeth)*</i>	
DisboPUR 374 DisboADD 942	approx. 3.6 kg/m <sup>2</sup> approx. 1.8 kg/m <sup>2</sup>

<b>Interspersion coat</b>	
<i>Interspersion layer</i>	
DisboPUR 374	approx. 2.4 kg/m <sup>2</sup>
DisboADD 942	approx. 1.2 kg/m <sup>2</sup>
<i>Sprinkling sand</i>	
DisboADD 943 or DisboADD 944	approx. 4.0–4.5 kg/m <sup>2</sup>
<i>Anti-slip seal</i>	
DisboPUR 374	approx. 0.7-0.9 kg/m <sup>2</sup>

\* This is a recommendation. The notch size depends on the wear resistance of the scraper, the temperature, filling level and unevenness of the ground.  
The consumption of the top sealing coat on spread coatings varies due to temperature influences, type of application, tools and different spreading materials. Exact consumption values should therefore be determined by applying a sample to the object.

Workability

Approx. 25 minutes at 20 °C and 60% relative humidity.  
Higher temperatures shorten the pot life, lower temperatures extend it.

Application Conditions

**Material, circulating air and substrate temperature:**  
Min. 5 °C, max. 30 °C  
The relative humidity must not exceed 80%. The substrate temperature must always be at least 3 °C above the dew point temperature.

Waiting Time

The waiting times between work cycles must be at least 16 hours at 20 °C and a maximum of 24 hours. For longer waiting times, the surface of the previous work cycle must be sanded if it has not already been sanded off.  
The specified period is shortened by higher temperatures and extended by lower temperatures.

Drying/Drying Time

At 20 °C and 60% relative humidity, can be walked on after approx. 16 hours, mechanically durable after approx. 3 days, fully cured after approx. 7 days.  
Correspondingly longer at low temperatures. Protect the applied material from moisture during the curing process (approx 16 hours at 20 °C), as otherwise surface defects and reduced adhesion may occur.

Tool Cleaning

Immediately after use and in case of relatively long breaks in work, using DisboADD 499 Verdünner/Reiniger.

Advice

German Certificates

- Anti-slip properties R9 as per 12 8910 - S / 18 (MPI Adendorf)
- Anti-slip properties R10 as per 12 8840 - S / 18 (MPI Adendorf)
- Anti-slip properties R11 V4 as per 12 8841 - S / 18 (MPI Adendorf)

Further information available on request.

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

Product intended for industrial processing only.

*Component A:*

If medical advice is needed, have product container or label at hand. Keep out of reach of children. Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

*Component B:*

Causes skin irritation. Can cause allergic skin reactions. Causes severe eye irritation. Harmful to health if inhaled. Can cause allergies or asthma symptoms or breathing difficulties if inhaled. May irritate the respiratory tract. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure. Obtain special instructions before use. Do not inhale vapour/aerosol. Do not allow to get into eyes, onto skin or clothing. Wear protective gloves/protective clothing/eye protection/face shield. IF INHALED: Take person out into fresh air and ensure unobstructed breathing. IF exposed or affected: Seek medical advice/medical attention.

**Contains:** diphenylmethane-4,4'-diisocyanate, 4,4'-methylenediphenyldiisocyanate, o-(p-isocyanatobenzyl)phenyl isocyanate, 2,2'-methylenediphenyl diisocyanate. **Hotline for questions regarding allergies and technical advice:** 0800/1895000 (free from German landlines).

Disposal

The content and container must be disposed of in accordance with local, regional, national and international guidelines. Material residues: Leave base compound to cure with hardener and dispose of as waste paint. Product residues that have not been hardened and containers, that have not been cleaned, must be disposed of as hazardous waste. Waste should not be disposed of with waste water.

EU limit value for the VOC content

of this product (cat. A/j): 500 g/l (2010). This product contains max. < 10 g/l VOC.


Giscode

PU 40

Further Details

Please refer to the safety data sheets. When processing the material, the Building Protection Processing Information and Caparol Cleaning and Care Recommendations for floors must be observed.

CE Labelling

	
Disbon GmbH Roßdörfer Straße 50, D-64372 Ober-Ramstadt, Germany	
<b>18</b>	
DIS-374-015734 EN 13813: 2002 Synthetic resin screed/synthetic resin coating for use in indoor areas EN 13813:SR-C <sub>fl</sub> -B1,5-AR1-IR4	
Fire performance	C <sub>fl-s1</sub>
Release of corrosive substances	SR
Water permeability	NPD
Abrasion resistance	≤ AR1
Tensile strength	≥ B1,5
Impact resistance	≥ IR4

**EN 13813**

The standard EN 13813 “Screed material and floor screeds – Screed materials – Properties and requirements” specifies the requirements for screed materials that are used for floor constructions in indoor areas. Synthetic resin coatings and seals are also covered by this standard.

Products that comply with the above standard must bear the CE mark. The mark is provided on the container and in the appendix of the declaration of performance according to the Construction Products Regulation (BauPVO), which is available online at: [www.disbon.de](http://www.disbon.de).

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International Distribution: Please see [www.caparol.com](http://www.caparol.com)

## Technical Information No.374 · Issue: November 2021

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.374 · DisboPUR 374  
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