

## System Data Sheet

# Disboxid MultiColor-System

For balconies, terraces and arcades

10 Classic, 6 natural and 4-trend shades.

Elastic, crack-bridging and sealing.

High-quality, ambitious and individual.



## System Description

The Disboxid MultiColor-System is a surface designing system for self-levelling floor coatings (flow coat system). For use on balconies, terraces and arcades. The system consists of 3 products plus Disboxid 957 MultiColor-Chips and Disboxid 948 ColorChips Glimmer.

| System  | Product   |
|---|---|
| Priming coat<br>(only for mineral substrates) | Disboxid 420 E.MI Primer  |
| Intermediate coat<br>with colour designing    | Disboxid 448 Elastikschicht<br>Disboxid 957 MultiColor-Chips<br>Disboxid 948 ColorChips Glimmer |
| Finishing coat                                | Disbothan 446 PU-Klarschicht  |

Areas of Application

Crack-bridging, sealing coating for mineral substrates (concrete, cement screed), ceramic coverings, and sound existing coatings on balconies, terraces and arcades.

Material Base / Vehicle

**Disboxid 420 E.MI Primer:**

Transparent, benzyl alcohol-free, 2-component liquid epoxy resin, total solid according to German Construction Chemistry.

**Disboxid 448 Elastikschicht:**

Pigmented, two-component epoxy resin/polyurethane combination, low-solvent

**Disboxid 957 MultiColor-Chips:**

Colourful synthetic chips.

**Disboxid 948 ColorChips Glimmer:**

Colorful plastic glimmer

**Disbothan 446 PU-Klarschicht:**

Transparent, one-component polyurethane liquid plastic, solvent based.

Gloss Level

Glossy (finishing coat)

## Technical Data

|  | <b>Disboxid 420<br/>E.MI Primer</b>                                    | <b>Disboxid 448<br/>Elastikschiicht</b>                                | <b>Disboxid 957<br/>MultiColor-Chips<br/>Disboxid 948 ColorChips<br/>Glimmer</b>   | <b>Disbothan 446<br/>PU-Klarschiicht</b>                               |
|--|--|--|--|--|
| <b>Density</b>   | approx. 1.1 g/cm <sup>3</sup>  | approx. 1.3 g/cm <sup>3</sup>  | –  | approx. 1.05 g/cm <sup>3</sup>   |
| <b>Dry Film Thickness</b><br>for each 100 g/m <sup>2</sup>                                 | approx. 90 µm  | approx. 60 µm  | –  | approx. 68 µm  |
| <b>Mixing Ratio</b><br>Base material<br>Hardener   | 7 parts by weight<br>3 parts by weight                                 | 4 parts by weight<br>1 part by weight                                  | –<br>–   | –<br>–   |
| <b>Workability / Pot Life*</b>   | approx. 30 min.  | approx. 60 min.  | –  | –  |
| <b>Consumption</b>   | approx. 200 – 400 g/m <sup>2</sup>                                     | approx. 2 kg/m <sup>2</sup>  | approx. 800-1.100 g/m <sup>2</sup><br>Disboxid 957<br>MultiColorchips ca. 27 - 39<br>g/m <sup>2</sup> Disboxid 948<br>ColorChips Glimmer | approx. 400 - 600 g/m <sup>2</sup>                                     |
| <b>Drying Times*</b><br>Walkable<br>Resilient (mechanical<br>loads)<br>Completely hardened | after approx. 12 hours<br>after approx. 3 days<br>after approx. 7 days | after approx. 12 hours<br>after approx. 3 days<br>after approx. 7 days | –<br>–<br>–  | after approx. 12 hours<br>after approx. 3 days<br>after approx. 7 days |

\* Reference values at 20 °C and 60% relative humidity

## Package Size / Colours

| <b>Product</b>                  | <b>Packaging size</b>   | <b>Colours</b>  |
|---------------------------------|---|---|
| Disboxid 420 E.MI Primer        | 25 kg container:<br>17.5 kg tin-Hobbock (base)<br>7.5 kg tin-bucket (hardener)<br>10 kg tin combi-packaging<br>5 kg tin combi-packaging<br>1 kg tin combi-packaging | Transparent   |
| Disboxid 448 Elastikschiicht    | 10 kg tin combi-packaging<br>3 kg tin combi-packaging   | Pebble grey   |
| Disboxid 957 MultiColor-Chips   | 5 kg-carton   | Classic colors: bronzite, garnet, onyx, lava, aquamarine, sapphire, emerald, jade, ruby , red jasper<br><br>Natural colors: granite, light granite, diorite, syenite, monzonite, labradorite<br><br>Trend colors: opal, amethyst, jet, ametrine |
| Disboxid 948 ColorChips Glimmer | 1 kg plastic-bucket   | Gold, silver  |
| Disbothan 446 PU-Klarschiicht   | 1 kg tin can<br>6 kg tin-bucket<br>12 kg tin-bucket   | Transparent   |

Note: The colors mentioned above are achieved only in conjunction with the Pebble grey shade (with chip-colour bronzite and garnet, optionally nut-brown) of the intermediate coating Disboxid 448 Elastikschiicht.

Discolouration and chalking effects may occur with weathering and UV light exposure. The colourants 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 mechanical loads with grinding effect. Proper functioning of the coating will not be affected by these changes.

## Storage

| Product                         | Storage               | Shelf life                   |
|---------------------------------|-----------------------|------------------------------|
| Disboxid 420 E.MI Primer        | cool, dry, frost-free | 2 years, original packaging  |
| Disboxid 448 Elastikschicht     | cool, dry, frost-free | 1 year, original packaging   |
| Disboxid 957 MultiColor-Chips   | cool, dry, frost-free | unlimited                    |
| Disboxid 948 ColorChips Glimmer | cool, dry, frost-free | unlimited                    |
| Disbothan 446 PU-Klarschicht    | cool, dry, frost-free | 6 months, original packaging |

If temperatures are low, the material must be stored at 20 °C before application.

## Application

### Suitable Substrates

All types of mineral and ceramic substrates. Also suitable for application on compatible two-component coatings. The substrates must be sound, dimensionally stable, solid and free from all materials that may prevent good adhesion, e.g. oils, fats/greases or abraded rubber contamination (skid marks). Tiles and 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 min. 1.5 N/mm<sup>2</sup>. Moisture content for cement-based substrates must not exceed 4% by weight (this also applies to screeds under existing tiles). Rising damp/moisture must be avoided.

### Substrate Preparation

Prepare the substrate by suitable means, e.g. grit blasting (shot peening) or milling, in order to meet the above mentioned requirements. Always remove existing 1-component coatings and loose 2-component coatings. Vitreous surfaces and surfaces of rigid existing 2-component coatings must be cleaned and roughened (flattened) by sanding or blasting. Repair spallings and defects with Disbocret® PCC mortar, filling them flush with the surface.

### Preparation

#### Disboxid 420 E.MI Primer:

Add the hardener to the base material and stir intensively with a suitable low-speed electrical paddle (agitator: max. 400 rpm). Continue stirring until a homogeneous, streak-free colour shade is achieved. Pour the mixture in another clean container and stir again very thoroughly.

#### Disboxid 448 Elastikschicht:

Add the hardener to the base material and stir intensively with a suitable low-speed electrical paddle (agitator: max. 400 rpm). Continue stirring until a homogeneous, streak-free colour shade is achieved. Pour the mixture in another clean container and stir again very thoroughly.

#### Disboxid 957 MultiColor-Chips:

The MultiColor-Chips are ready for use. For application on connected surfaces pour the required amount of chips into a sufficiently large container, e.g. mortar tub, and stir manually.

#### Disboxid 948 ColorChips Glimmer:

The ColorChips Glimmer can be mixed in with the MultiColor-Chips. For application on connected surfaces pour the required amount of chips into a sufficiently large container, e.g. mortar tub, and stir manually.

#### Disbothan 446 PU-Klarschicht:

The material is ready for use. For slip-resistant top sealing thinning is possible up to max. 6% with Disbocolor 499 Verdünner. Irreversible sticking effects occur, if other thinners are used. Already pre-reacted material cannot be thinned and is unusable.

### Surface Coating System

#### Priming coat

##### *Absorbent, mineral substrates*

Prime mineral substrates with Disboxid 420 E.MI, filling all pores.

Consumption\*:

Disboxid 420 E.MI Primer: approx. 200 - 400 g/m<sup>2</sup>

Disboxid 942 Mischquarz: approx. 1,500 - 2,000g/m<sup>2</sup>

Finally sand/strew the whole surface of the freshly applied coating with Disboxid 942 Mischquarz.

##### *Ceramic substrates*

Level tile joints with Disboxid 448 Elastikschicht adjusted with approx. 2% by weight of set-up agent Disboxid 952 Stellmittel.

Consumption\*:

Disboxid 448 Elastikschicht: approx. 500 - 1,000 g/m<sup>2</sup>

Disboxid 952 Stellmittel: approx. 10 - 20 g/m<sup>2</sup>

## Scratch filler application (if necessary)

Rough-textured substrates must additionally be equalised with a scratch filling.

*Consumption\*:*

Disboxid 420 E.MI Primer: approx. 660 g/mm/m<sup>2</sup>

Disboxid 942 Mischquarz: approx. 1,000 g/mm/m<sup>2</sup>

Then sand/strew the whole surface of the freshly applied coating with Disboxid 942 Mischquarz.

*Consumption\*:*

Disboxid 942 Mischquarz: approx. 1,500 – 2,000 g/m<sup>2</sup>

## Intermediate coat with colour-designing

Cast mixed elastic coat Disboxid 448 Elastikschiicht over the primed surface. Spread uniformly with a smoothing trowel or 4 mm V-notched trowel\*\*. After waiting about 10 minutes deaerate crosswise with a spiked roller.

*Consumption\*:*

Disboxid 448 Elastikschiicht: approx. 2,000 g/m<sup>2</sup>

Spray Disboxid 957 MultiColor-Chips by hopper-gun ("Flüstertüte", made by Putzmeister), with a working pressure of approx. 2 bar, onto the freshly deaerated intermediate coatings surface. For this purpose the surface may be walked on with hobnailed boots.

Disboxid 957 MultiColor-Chips can be mixed with up to 3 % by weight of Disboxid 948ColorChips.

The nozzle should be held slightly downward to guarantee a uniform spread of chips. The surface to be coated should initially be sprayed twice (thin uniform films of chips) and then be completely covered with an overage of MultiColor Chips. Connected surfaces should always be coated in one operation to avoid visible lapping. Do not apply during strong wind conditions.

*Consumption\*:*

Disboxid 957 MultiColor-Chips approx. 800 - 1100 g/m<sup>2</sup>

Note: In case of intensive chip colours, the intermediate coat should be applied without surface unevenness and visible trowel marks. To avoid the forming of visible shading the air-injection of MultiColor-Chips to the surface must be completed homogeneously and with overage. Protect air-injected chips from moisture.

Allow the intermediate coat to harden, then slightly sandpaper the complete surface (dry abrasive paper, grit of 60 – 80) and sweep or remove the dust by suction cleaning.

Note: Avoid all soiling and high mechanical loads of surfaces covered with chips. Workers shoes should be protected e.g. with clean clothes or fabric overshoes.

## Finishing coat

Pour Disbothan 446 PU-Klarschiicht evenly on the intermediate coat with a medium pile roller.

*Consumption\*:*

Disbothan 446 PU-Klarschiicht: approx. 400 - 600 g/m<sup>2</sup>

## Additional slip-resistant top sealing with glass pellets

Pour Disbothan 446 PU-Klarschiicht with an additional 10 % by weight of Disbon 947 SlideStop Rough and approx. 6 % by weight of thinner Disbocolor 499 evenly on the finishing coat, using PE-smoother. Then roll crosswise over the coating, using a rough roller (Moltoprenwalze, pore size approx. 5mm). For this purpose the surface may be walked on with hobnailed boots. In case of prolonged downtimes stir the material in between.

*Consumption\*:*

Disbothan 446 PU-Klarschiicht approx. 150 g/m<sup>2</sup>

Disboxid 947 SlideStop Rough: approx. 15 g/m<sup>2</sup>

Disbocolor 499 Verdünner approx. 9 ml/m<sup>2</sup>

Note: To preserve the noble surface aspect, cleaning and care at regular intervals with normal household cleaning agents and cleaning methods is essential

\* The exact rate of consumption should be determined by a trial application on site.

\*\* The given indication of consumption is only a recommendation. Notching depends on wear resistance of the tools, temperature, degree of filling and substrate conditions.

Working Temperature

## Material, Atmospheric, and Substrate Temperature:

Min. 10 °C, max. 30 °C during application and drying (Disbothan 446 PU-Klarschiicht can be stored at min. 5 °C). Relative humidity must not exceed 80 %. Substrate temperature should always be min. 3 °C above the dew point temperature.

Drying Time

At 20 °C and 60% relative humidity the system products are recoatable after 16 – 24 hours. The finishing coat is walkable after 6 hours (only limited loads). Hardened after approx. 3 days for mechanical loads and completely hardened after approx. 7 days.

Tool Cleaning

Immediately after use or during longer breaks with Disboxid 419 thinner.

## Advice

Special hazards/risks, safety advice, Giscodes, disposal, VOC and CE labelling to EN 13 813 for each system product:

Follow the corresponding Technical Information:

Disboxid 420 E.MI Primer  
Disboxid 448 Elastikschicht  
Disbothan 446 PU-Klarschicht

German Certificates

■ 1-1273 Testing of anti-slip property R10  
Material-Testing-Institute Hellberg, Adendorf

Further Details

See Material Safety Data Sheets (MSDS) of:  
Disboxid 420 E.MI Primer  
Disboxid 448 Elastikschicht  
Disbothan 446 PU-Klarschicht

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

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