



Disbopur 459 PU-AquaColor

Pigmented, aqueous 2-component polyurethane resin for silk-matt top sealing of rigid and viscous-rigid polyurethane- and epoxy-based interior coatings. Emission-minimised, technically controlled and supervised (TÜV).

Product Description

Field of Application

Due to the emission-minimised, ecologically compatible formula, particularly suitable for all »sensitive/delicate« areas, as e.g. lounges, hospitals, nurseries, play schools, schools, etc.
For silk-matt, pigmented sealing of rigid and viscous-rigid with low resistant of mechanical loads in private, industrial or trade areas.

Material Properties

- Emission-minimised.
- Tested on harmful substances and controlled by Technical Control Board (TÜV).
- General Building Approval by the German Institute for Structural Engineering.
- Abrasion-resistant.
- High opacity (hiding/covering power).
- Proper resistance to chemicals and UV rays.
- Enhances surface cleaning properties.
- Enhances the scratch resistance of rigid and viscous-rigid polyurethane and epoxy-based coatings.
- Water vapour permeable.

Tested according to the AgBB testing criteria for VOC-emissions from interior building material. The criteria of the 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

Aqueous 2-component polyurethane dispersion.

Packaging/Package Size

4 kg plastic combi-packaging (also ColorExpress)

Colours

Pebble Grey, Stone Grey, Light Grey.
Special tints available on request.

Exclusive colour designing is possible by the use of FloorColor collection. May be tinted via ColorExpress machine system in numerous colours. Mix base 1, 2 or 3 according to the shade. 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/sliding. The functional capability of the coating will not be affected by these changes.

Gloss Level

Silk-matt.

Storage

Dry, cool, frost-free.
Tightly closed original packaging has a minimum shelf life of 6 months. If temperatures are low, the material should be stored at 20 °C before application.



Technical Data

- Density: approx. 1.15 g/cm³
- Dry film thickness: approx. 50 µm/100 g/m²
- Abrasion to Taber (CS 10/1000 U/1000 g): 45 mg/30 cm²
- Viscosity: approx. 1000 mPas

Chemical resistance

Chemical Resistance following DIN 53 168 at 20 °C	
<i>Test groups to testing principles of DIBT, Berlin</i>	7 Days
Group 1: Motor fuels	+(S)
Group 3: Heating fuel oil (to DIN 51 603-1)	+
Group 4: All hydrocarbons	+(S)
Group 5: Alcohols (mono-/polyvalent)	+(S)
Group 7b: Biodiesel (to DIN EN 14214)	+
Group 8: Aqueous solutions of aliphatic aldehydes up to 40%	+
Group 9: Aqueous solutions of inorganic acids (carboxylic acids) up to 10%	+ (S)
Group 10: Mineral acids up to 20%	+
Group 11: Inorganic bases	+
Group 14: Aqueous solutions of organic tensides	+
Skydrol	+ (D)
Citric acid, 10% sol.	+
Ferric III Chloride sol., saturated	+ (D)
Phosphoric acid, 85% sol.	+ (S,D)
Xylene (xylol)	+ (S)
Ammonia solution, 25%	+
Cola	+
Coffee	+ (D)
Red wine	+ (D)
Ethanol, 40% solution	+ (S)
Ethanol, 96% solution	+ (S)
Acetone	+ (S)
Distilled water	+
White spirit (turpentine substitute)	+ (D)
Hydrochloric acid, 10% sol.	+
Hydrochloric acid, 30% sol.	+ (D)
Legend: + = Resistant D = Discolouration S = Slightly Softening	

Application

Suitable Substrates

Sound, adherent, rigid to viscous-rigid polyurethane and epoxy coatings. The substrates must be dry, sound, dimensionally stable, solid, free from all materials that may prevent good adhesion, e.g. loose/brittle materials, dust, oils, fats/greases or abraded rubber (skid marks).

Substrate Preparation

Prepare the substrate by suitable means, e.g. thorough sweeping and removing dust with a vacuum cleaner, in order to fulfil the above mentioned requirements.

Grind existing coatings thoroughly unto stress whitening. Seal new two-component coatings on the following day. For longer waiting periods the coating must be slightly roughened with fine-grained scouring pad. At lower temperatures the waiting time may be accordingly longer. Water-thinnable reaction resin systems require adequate time for drying.

Preparation of Material

Add the hardener to the base material and stir intensively with a low-speed electrical paddle (agitator; max. 400 rpm) until a homogenous shade without streaks is achieved. Pour the mixture into another container and continue stirring.

Mixing Ratio

Base material: Hardener = 85 : 15 parts by weight.

Method of Application

Apply by brush or with a textured polyamide roller, e.g. Rotanyl roller 8 mm, pile height 11 mm, manufacturer: Rotaplast.

Always work wet on wet to achieve an uniform aspect.

Surface Design

Scatter/strew Disboxid 948 Color-Chips speedily into the freshly applied coating. Allow to dry and seal smooth with Disbopur 458 PU-AquaSiegel or seal for anti-skid treatment by adding 2 top 3% by weight of Disbon 947 Slidestop.

Surface Coating System

Smooth surface

Apply a uniform cross-coat of material in a thin layer. Seal connected surfaces in one application without interruption to avoid visible lapping. Different-coloured substrates may require a second coat to achieve sufficient opacity. A third work step may be required for highly intensive colours (e.g. tinted with ColorExpress base 3) or different highcontrast colours.

Anti-skid treatment/slip-resistant surface

Add 2% by weight of Disbon 947 Slidestop to the material, mix thoroughly and seal as described above (*Smooth surface*). For longer breaks the material should be stirred in between.

Consumption

Smooth surface	
Disbopur 459 PU-AquaColor	approx. 100-150 g/m * per coat
Anti-skid treatment/Slip-resistant surface	
Disbopur 459 PU-AquaColor Disbon 947 SlideStop Fine	approx. 100 g/m ² approx. 2-3 g/m ²

* Two coats are necessary for rough textured substrates, to achieve a porous free surface. Exact values are determined by trial application on site.

Workability

At 20 °C and 60% relative humidity approx. 45 minutes.
Higher temperatures shorten and lower temperatures extend the pot life.

The end of pot life is not noticeable. Application after the recommended 45 minutes leads to variations in gloss level and shade, lower strength and diminished adhesion to the substrate. Apply uniformly to avoid different gloss levels and traces, visible in the sidelight (especially for deeper shades). Do not apply in an excessively high layer thickness (increased consumption > 200 g/m²) to avoid the forming of bubbles in the film. Provide for sufficient ventilation (air supply/ deaeration) during drying and hardening.

Application Conditions

Material, atmospheric, and substrate temperature

must be min. 10 °C and max. 25 °C during application and hardening.

Relative humidity must not exceed 80%. Substrate temperature should always be min. 3 °C above the dew point temperature.

Waiting Time

The waiting time between the individual work steps should be at least 16 hrs. and max. 24 hours at 20 °C.

Drying/Drying Time

At 20 °C and 60% relative humidity, walkable after approx. 16 hours. Ready for mechanical loads after approx. 3 days and completely hardened after approx. 7 days.

Tool Cleaning

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

Advice

German Certificates

- 1-1103 Test of anti-slip property R 11, Professional Association Institute, St. Augustin
- 1-1231 Test of anti-slip property R 10, Material Testing Institute Hellberg, Lüneburg
- 1-1104 Testing the ease of decontamination to DIN 25415, part 1, technical college Aachen
- 1-1216 Certification emissin minimised coating for standard-colours, TÜV Nord
- 1-1217 Certification emissin minimised coating for mixing-colours, TÜV Nord
- 1-1244 General Building Approval for use in living spaces, Z-156.605-640, German Institute for Structural Engineering, Berlin

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

The product is only to be used by trained operatives. (For professional use only.)

Base material: none

Hardener: May cause sensitization by skin contact. Keep out of the reach of children. Avoid contact with eyes and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. On contact with skin, wash immediately with plenty of water and soap. Do not empty into drains, water courses or onto the ground. Wear suitable protective gloves and eye/face protection. Hardener and mixed material (ready for use) may irritate skin and respiratory system and may cause sensitization and allergic reactions. Ventilate well during application and hardening period. Do not breathe vapours. Spraying/spray-application is not permitted. Allergic persons and persons sensitive to respiratory ailments are not permitted to work with this coating material. Contains isocyanates. See information supplied by the manufacturer (see Material Safety Data Sheets).

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. Residues: Harden the base material with the hardener and dispose of 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. 20 g/l of VOC.

Giscode PU 40

Further Details See Material Safety Data Sheets.

Follow the application references while applying our materials.

CE Labelling **EN 13813**
 CE labelling is based on 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 include synthetic resin coatings and sealing. Products matching the above mentioned standards are to be labelled with the CE mark. Additional engineer standards are effective for the use in Germany in structural safety relevant areas. Conformity is documented by the Ü sign (Überwachung = supervision) on the container. Established by documented evidence of conformity 2+ with controls and tests on the part of the manufacturer and notified bodys.

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