Disbopox 971 ESD-Rollschicht

Pigmented, aqueous, 2-component, epoxy-resin based floor coating. Without conductive layer electrostatically conductive according to DIN EN 61340-4-1, EN 61340-5-1, DIN EN 61340-4-5.

Product Description

Field of Application	For mineral floorings exposed to low to medium mechanical loads, e.g.: Manufacturing and storage areas Production facilities in the electronic semiconductor industry Laboratories and medical areas whith electronic equipment ESD (electrostatic sensitive device) rooms Factories in the automotive industry Facilities with sensitive electronic parts
Material Properties	■ Textured, providing an optical equalising effect ■ Water vapour permeable ■ No special conductive layer is necessary ■ Electrostatically conductive according to DIN EN 61340-4-1, EN 61340-5-1 and EN 61340-4-5 ■ Meets the requirements of VDE 0100/T610 for personal protection ■ Abrasion-resistant ■ Good cleaning properties ■ No initial treatment required
Material Base / Vehicle	Aqueous two-component liquid epoxy resin
Packaging/Package Size	10 kg plastic combi-packaging
Colours	Pebble-grey Special colours are available on request: Approx. RAL 1001 Beige, approx. RAL 6011 Reseda green, approx. RAL 7001 Silver grey, approx. RAL 7023 Concrete grey, approx. RAL 7030 Stone grey, approx. RAL 7035 Light grey, approx. RAL 7037 Dust grey, approx. RAL 9002 Grey-white. 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. Proper functioning of the coating will not be affected by these changes.
Gloss Level	Satin-gloss
Storage	Keep in a cool, dry, and frost-free place. Shelf life of the original, tightly closed packaging: min. 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):	approx. 40 mg/30 cm²
■ Pendulum hardness to König:	approx. 90 s

Application

Suitable Substrates

All types of mineral substrates.
The substrates must be sound, dimensionally stable, solid and free from all materials that may prevent good adhesion, e.g. loose/brittle materials, dust, oils, fats/greases or abraded rubber contamination (scuff/skid marks). 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.

Substrates must have achieved their equilibrium moisture content:
Concrete and cement-based composition floor (screed): max. 4 % by weight
Anhydrite screed: max. 1 % by weight
Magnesite screed: 2–4 % by weight
Xylolithe (Magnesium Oxychloride) screed: 4–8 % by weight

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 or should be primed with Disbon 481 EP-Uniprimer.
Repair spallings and defects with Disbocret® PCC or Disboxid EP mortars and fillers, filling them flush with the surface.

Preparation of Material

Add the hardener to the base material and stir intensively with a low-speed electric paddle (agitator; max. 400 rpm). Pour the mixture into another clean container and continue stirring.

Mixing Ratio

Base : hardener = 4 : 1 parts by weight

Method of Application

Apply the material with a notched hard rubber float/wiper (2 mm notching) and then treat crosswise with a texturing roller.

Surface Coating System

Priming Coat

Mineral substrates:
Prime with epoxy impregnation Disbopox 443 EP-Imprägnierung. Rough surfaces need an additional scratch filler application.

Level semi-rough surfaces with:
Disbopox 468 EP-Strukturschicht: 100 % by weight
Disboxid 942 Mischquarz: 20 % by weight

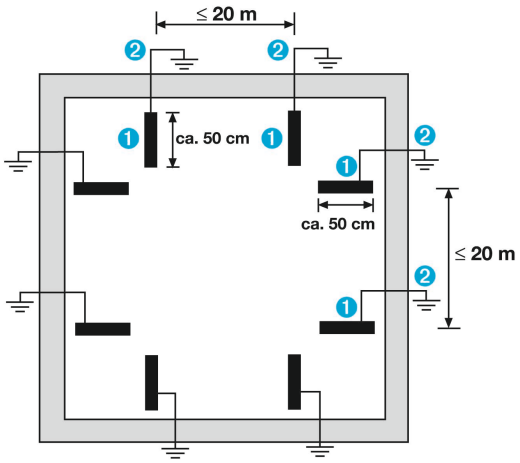
Level uneven, rough-textured substrates with:
Disbopox 453 Verlaufschicht: 100 % by weight
Disboxid 942 Mischquarz: max. 20% by weight

Existing rigid substrates:
Treat the surfaces according to the point “Substrate Preparation”.

Laying the Earth/Grounding Connections:
Allow the priming coat to harden, then stick self-adhesive copper strips Disbon 973 (length: approx. 50 cm) circulating the wall area (see figure) in a distance of max. 20 m. A minimum of two earth connections is required. The Disboxid 975 Leitset (conductive set) contains the necessary contact points for the earth/ground potential, that can be integrated within the coating system. Surfaces that are separated by joints are to be separately grounded. A maximum distance of ≤ 20 m between copper strips must be respected in case of large connected surfaces, by applying additional earth connections to pylons or other mounting parts.

Clean the thoroughly applied copper strips with a cloth, wetted with thinner Disboxid 419. The copper strips must be connected (by an expert for electrical supply) with the earthing/grounding of the building after having finished the application of coatings. Due to the low layer thickness, the copper band may emerge in the surface. Therefore, the copper band has to be installed in mechanically protected areas.

Layout for earthing connections:



Disbon 973 Kupferband
Braided wire made of copper, 4 mm² for connection to the earthing/grounding (ring line)

Textured Coating
Apply Disbopox 971 ESD Roller Coating with a notched hard rubber float/wiper. Then rework crosswise with a medium-porous Moltoprene roller (approx. 2 mm diameter of pores). Therefore the freshly coated surface is walkable with special hobnailed boots. During application the roller should be rolled from time to time on a neutral substrate to become dry and should be replaced for the work on large surfaces after approx. 100 m² of usage.

Consumption

Priming Coat	approx. 200 g/m²
Priming Coat *Semi-rough substrates:*	
Disbopox 468 EP-Strukturschicht	approx. 1.3 kg/mm/m²
Disboxid 942 Mischquarz	approx. 260 g/mm/m²
Uneven, rough-textured substrates:	
Disbopox 453 Verlaufschicht	approx. 1.04–1.2 kg/mm/m²
Disboxid 942 Mischquarz	approx. 210–240 g/mm/m²
Finishing Coat	approx. 400 g/m²

* The exact rate of consumption is best established by a trial coating.

Workability

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

Application Conditions

Material, atmospheric, and substrate temperature:
Min. 12 °C, max. 30 °C during application and drying.
Relative humidity must not exceed 80 %. Substrate temperature should always be min. 3 °C above the dew point temperature.

Waiting Time

at 20 °C the minimum waiting time between coatings should be between min. 16 hours and max. 24 hours. After extended waiting periods, the surface must be roughened and primed again. Higher temperatures shorten and lower temperatures extend the waiting time.

Drying/Drying Time

At 20 °C and 60 % relative humidity, walkable after approx. 24 hours, ready for mechanical loads after approx. 3 days and completely hardened after 7 days. Lower temperatures extend the drying time. During the curing process (approx. 16 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 water or warm soapy water.

Advice

German Certificates

- 1-1100 Testing of anti-slip property R9
  Material Testing Institute Hellberg, Lüneburg
- 1-1207 Testing of electrostatically properties
  Polymer-Institute, Flörsheim
- 1-1208 Testing of the isolation resistance
  Polymer-Institute, Flörsheim

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

For professional use only.

Base material: Irritating to skin. Risk of serious damage to eyes. Keep out of the reach of children. Do not breathe vapour/spray (aerosol). On contact with eyes rinse immediately with plenty of water and seek medical advice. In case of insufficient ventilation, wear suitable respiratory equipment. Use only in well-ventilated areas. Wear suitable gloves and eye/face protection.

Hardener: May cause sensitisation by skin contact. Irritating to eyes and skin. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do not breathe vapour/spray (aerosol). Avoid contact with skin. On 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. In case of insufficient ventilation, wear suitable respiratory equipment. Wear suitable gloves and eye/face protection. Use only in well-ventilated areas.

Contains epoxy-based compounds. See information supplied by the manufacturer - see Material Safety Data Sheet (MSDS).

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.
Residues of material: Allow base material and hardener (catalyst) 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. 40 g/l VOC.

Giscode

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Further Details

See Safety Data Sheet (MSDS).
Follow the application recommendation and advice for care and maintenance while applying our products.

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

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

DISBON GmbH · Rossdoerfer Strasse 50 · D-64372 Ober-Ramstadt · Phone +49 6154 71-71719 · Fax +49 6154 71-71008 · Internet www.disbon.com