

EP 311 ESD

PRODUCT DESCRIPTION	Two-component electrostatic dissipative topcoat based on epoxy resin, solvent-free.
PURPOSE	Self-levelling ESD topcoat for protection and decoration of concrete floor surfaces and cement glaze exposed to medium to heavy mechanical and chemical wear in industrial (production) facilities, laboratories with sensitive electronic equipment, computer rooms, warehouses and other facilities subjected to high explosion risk.
PROPERTIES	<ul style="list-style-type: none">• Electrically dissipative floor surface• Permanent conductivity without "hot spots"• Without carbon fibres• No need for conductive layer (faster and easier application and renovation)• Complies with TRGS 727• Meets EN 61340-5-1 (without need for the additional ESD topcoat)• Resistivity is independent on humidity.• The possibility of obtaining an anti-slip surface• Light-grey colour, a wide range of colours possible• Wear and chemical resistance.
DENSITY	Component A: 1,47-1,51 kg/l; Component B: 1,04 kg/l; Mixture (A+B): 1,36-1,39 kg/l
TECHNICAL DATA	<p>Mixing ratio (by mass): Component A: Component B – 80,6 : 19,4</p> <p>Solid content: By weight: ~ 100% By volume: ~ 100%</p> <p>Pot-life: 45 min, under standard conditions</p> <p>Drying/hardening time under standard conditions:</p> <ul style="list-style-type: none">- dust dry: after approx. 12 hours- light foot traffic: after approx. 24 hours- full cure: after 7 days <p>Abrasion resistance (Taber abraser test, CS 10/1000/1000 g): 60 mg (7 days, 23 °C, 60% RAH);</p> <p>Shore D Hardness: ~ 76 (7 days, 23°C, 60% RAH);</p> <p>Compressive Strength: ~ 63,6 N/mm²; after 30 days of conditioning (23 °C, 60% RAH);</p> <p>Flexural Strength: ~ 69,3 N/mm²; after 30 days of conditioning (23 °C, 60% RAH);</p> <p>Adhesion Strength: 4,8 N/mm² (100 % cohesive failure in concrete); after 30 days of conditioning (23 °C, 60% RAH);</p> <p>Electrostatic behavior:</p> <ul style="list-style-type: none">• Rg according to IEC 61340-4-1 (resistance to earthing point): <1 x10⁹ Ω• Rg according to IEC 61340-4-5 (system resistance (person/floor/footwear)): <1 x10⁹ Ω• Body voltage according to IEC 61340-4-5: < 100 V
THERMAL RESISTANCE	Continuous exposure: +50 °C; Longer exposure (up to 7 days): +80 °C Short-term exposure (up to 12 hours): +100 °C
APPLICATION CONDITIONS	Substrate and air temperature: min. +10 °C; max. +30 °C Relative air humidity: max. 75 %, with adequate ventilation. There must be no condensation. Pay attention to the dew point.

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SUBSTRATE QUALITY	Compressive strength: min. 25 N/mm ² Bond strength (pull-off test): min. 1,5 N/mm ² The surface must be dry and clean. Substrate moisture: max. 4%																																						
SUBSTRATE PREPARATION	Mechanical treatment (grinding and /or shot blasting) to remove bumps and weakly bound surface layer and surface contamination. The cracks, pores and uneven sections should be filled with suitable material. Remove dust and loose parts by using a vacuum cleaner or brush. The substrate must be primed with Floor expert EP 101 or EP 1013 and levelled by using Floor expert EP 211M epoxy glaze.																																						
MATERIAL PREPARATION	Mix well component A using a low- speed mixer (max. 400 r / min). Then add component B into component A and mix thoroughly with a low-speed mixer (max. 400 r / min) around 2 min. Then pour the mixture into another container and mix again. If the textured surface is required, gradually add 1,5 -2,0 % Floor expert thickener into the mixture and mix until a homogeneous mixture is obtained.																																						
APPLICATION METHOD	Apply by notched trowel (tooth size S3). Shortly after applying with the notched trowel, cross the surface with a spiked roller to equalize the thickness and purge air. To obtain a textured finish, apply the product thickened with Floor expert thickener evenly over the surface with a notched trowel (tooth size B2). Immediately after application, roll the surface in two directions at right angles with a textured roller.																																						
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COLOUR RANGE/GLOSS	Standard offer: RAL 7032, RAL 7030, RAL 7037, RAL 7040; other shades on request. Glossy.																																						
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STORAGE

In dry and airy rooms in originally sealed containers at temperatures from +5 °C to +25 °C.
Shelf life: 6 months

NOTES

- The product can only be applied by experienced professionals.
- The conductive additive in the final layer causes a slight unevenness in tone immediately after application with a notched trowel, which disappears after treatment with a spiked roller.
- If temporary heating of the building is required, avoid gas, oil, paraffin, or other fossil fuel heaters. They produce large amounts of carbon dioxide and water vapor, which can negatively affect the final layer. We recommend hot air blowing systems on electrical power.
- The freshly applied system must be protected from moisture, condensation and water for at least 24 hours.
- When installing the floor on a single surface (continuous application), always use the material with the same batch number. Otherwise, slight deviations in the shade may occur.
- Epoxy coatings are not stable under UV exposure conditions and are generally not suitable for outdoor application.
- Extremely abrasive mechanical loads leave scratch marks and floor wear, which must be considered when applying these coatings.
- Before the installation of the ESD flooring system, it is necessary to make test field in the building, measure the electrical resistance values and agree on detailed procedures related to the installation and maintenance of the flooring system.
- During the exploitation, the ESD flooring system must be regularly maintained in accordance with the Maintenance Plan. Spilled liquids must be removed immediately. Floor must be cleaned regularly because the grease and dirt deposits reduce the electrostatic dissipative function of the flooring system

Last update: June 2025.

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