Technical Data Sheet

AB-ZEROPOX® 883 ESD

2-C-EP-ESD-textured topcoat

Description:

2-component textured epoxy coating with conductive polymeric structures, coloured very low emission

Characteristics:

- in accordance with the official standards DIN EN 61340-4-1 and DIN EN 61340-4-5
- free of ionic liquids / salts
- anti-slip classification R10 (GMG)
- textured / gloss finish
- high compressive strength
- high abrasion resistance
- easy to clean
- inert and harmless once cured

Application:

AB-ZEROPOX 883 ESD is an electrostatically conductive, textured and economical sealer that is used for production plants, sales areas, warehouses, research and development laboratories and all of which must comply with the ESD - standards. **AB-ZEROPOX 883 ESD** is used only to coat the self-levelling **AB-ZEROPOX 846 ESD** which must be **thoroughly sanded** prior to the application. **AB-ZEROPOX 883 ESD** forms during the curing process a special and unique electrically conductive polymeric structure, which is both chemically and mechanically resistant. This flooring system can effectively prevent the build-up of electrostatic charges > 100 volt (walking test).
! Before applying the textured sealer the self-levelling coating must be thoroughly sanded !
Test the flooring system earliest after 3 days curing time.
AB-ZEROPOX 883 ESD is to be applied only by trained companies.

Consumption:

approx. 0.15 - max. 0.2 kg/m².

Resistant to:

- water / salt water / sewage
- common detergents
- disinfectants
- saline solutions
- solvents (please consult us)
- diluted acids and alkalis
- lubricants and fuels
- wet temperature max. 40°C

Technical Data:

Mixing ratio A : B	100 : 18 by weight (5.55 : 1)
Density (23°C)	approx. 1.7 g/cm³
Volume solids	approx. 100 %
Viscosity (23°C)	thixotropic
Compressive strength (DIN EN ISO 604)	approx. 60 N/mm²
Abrasion (1000 g / 1000 rev.) acc. to Taber	55 mg
Walking test EOS/ESD-STM 97.2 DIN EN 61340-5-1	< 100 Volt (12 ± 3 % relative humidity of air)
System resistance DIN EN 61340-5-1, EOS/ESD-STM 97.1 and 97.2	< 1 x 10^9 Ω
Discharge value DIN IEC 1340-4-1	< 1 x 10^9 Ω

Details for application:

Pot life (15°C / 23°C / 30°C)	approx. 25 minutes / 20 minutes / 15 minutes
Substrate temperature	minimum 15°C up to maximum 30°C
Material temperature	15°C - 25°C
Maximum relative humidity of air	at 15°C: 75 % (dew point +3°C) at > 23°C: 85 % (dew point +3°C)
Curing time / foot traffic (15°C / 23°C / 30°C)	24 hours / 18 hours / 16 hours
Curing time / mech. resistance (15°C / 23°C / 30°C)	72 hours / 48 hours / 36 hours
Curing time / chem. resistance (15°C / 23°C / 30°C)	7 days / 5 days / 3 days
All above values are approximate and may be used as a guideline for specifications	

Packaging:

10 kg - pails

Colour:

ESD - light grey (other colours available on request)
- due to raw material variations and manufacturing techniques, a slight colour / batch difference may occur -

Storage:

12 months, unopened in original drums under dry conditions and a temperature of 15 - 25°C. At temperatures < 10°C crystallisation is possible. Longer storage can lead to sediment formation.

1. Surface preparation
The surface that is to be sealed must be in a sound condition and of good quality in general. The self-levelling coating of **AB-ZEROPOX 846 ESD** must have sufficiently cured to accept foot traffic. Thoroughly sand the ESD surface, dust-free / wet-cleaning and let the surface dry. The surface must be clean, dry and free of oil, fat and other contaminants.
See also "general preparation and application instructions" sheet.

2. Application
Prior to mixing, the temperature of the components must be between 15 - 25°C. **Stir the components thoroughly** and mix in the correct ratio using a suitable low speed electric mixer (300 - 400 rpm) for at least 3 minutes or until a completely homogeneous mixture has been achieved. Put the mixed material into a clean container and mix again for at least 1 minute more. Distribute the mixture immediately onto the surface. To spread **AB-ZEROPOX 883 ESD** as an even coat use a rubber squeegee. To attain an acceptable finish use a suitable short-haired paint-roller (nylon, 6 mm). Avoid overlapping where possible. Only the use of a paint-roller may lead to a finish that has shadows; this is normally due to an uneven thickness (WFT). Should the application for any reason be interrupted, tape the edges of the applied material. After approx. 1 hour remove the tape, you will notice that a well defined seam has been created. Prior to, during and after the application the temperature of the substrate must be at least +3°C above the current dew point temperature.

3. System description
The following figures are for ambient and surface temperatures of 15 - 23°C.

Primer:
AB-ZEROPOX 803, clear
Consumption: approx. 0.3 - 0.5 kg/m², lightly sprinkle with clean, dry quartz sand Ø 0.4 - 0.8 mm (approx. 0.5 kg/m²).

Levelling coat:
AB-ZEROPOX 803 + quartz sand
Consumption: approx. 0.8 - 1.2 kg/m² resin plus quartz sand, **no** quartz sand to be sprinkled on the surface.

Recommendation: Lightly sand the surface, dust-free / wet-cleaning and let the surface dry.

N/B: To achieve a premium surface and maximum conductivity, the levelling coat must be applied to the highest standards!

Connection to earth:
Must be installed and controlled by a qualified electrician (within a radius of approx. 10 m).

Conductive coating:
AB-ZEROPOX 860 LS, black
Consumption: 0.1 - max. 0.13 kg/m².

N/B: Once cured, the conductivity of the coating must be tested (100 volt measuring instrument)!

Self-levelling coating:
AB-ZEROPOX 846 ESD, ESD-light grey
Consumption: 2 kg/m².

Sand the AB-ZEROPOX 846 ESD
Thoroughly sand the ESD surface, dust-free / wet-cleaning and let the surface dry. After the surface preparation apply a topcoat with:

ESD textured topcoat:
AB-ZEROPOX 883 ESD, ESD-light grey
Consumption: 0.15 - max. 0.2 kg/m².

N/B:
UV radiation causes discolouration.

4. Cleaning
To clean the surface (manual or by machine) use only neutral or slightly alkaline (pH < 10) cleaning agents without preservation additives that will create a film. We highly recommend that you contact a specialist cleaning contractor.

5. Chemical resistance
Depending on the requirements we recommend to test the chemical resistance.

6. Packaging
10 kg - sets
8.47 kg component A
1.53 kg component B

7. Health and safety
GISCODE: RE30
Wear suitable protective clothing, gloves and eye / face protection. Adequate ventilation of the working area is recommended. After contact with skin, wash immediately with plenty of water and soap. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. When using do not eat, drink, smoke and keep away from sources of ignition. For additional references to safety-hazard warnings, regulations regarding the transport and waste management please refer to the relevant Safety Data Sheet.

8. EU Directive ("Decopaint-RL"):
Acc. to the EU Directive 2004/42/EG the maximum allowed content of VOC (Product category AII / j / type SB) is 500 g/l (Limit 2010) for the ready to use product. This product is in accordance with the EU Directive 2010.

9. Protective cover:
If necessary (e.g. in the case of following installation work), the surface can be protected against mechanical damage with a suitable cover fleece (e.g. PAVISAVE) at earliest after 5 days (please consult us!). Soaked hardboard is not suitable as a protective cover!

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