Technical Data Sheet

AB-ZEROPOX® 843 AS

2-C-EP-antistatic coating

Description:

2-component epoxy coating with electrostatic conductivity, coloured
very low emission

Characteristics:

- electrostatically conductive
  DIN EN 1081; DIN EN 61340-4-1
- self-levelling
- very high chemical resistance
- very high mechanical resistance
- high abrasion resistance
- inert and harmless once cured

Application:

AB-ZEROPOX 843 AS is a very low emission, electrostatically conductive industrial floor coating for production plants, sales areas and warehouses. **AB-ZEROPOX 843 AS** is designed for use in storage and production facilities; also in areas where there is risk of explosion, due in the main to its high chemical and mechanical resistance, and obviously its conductivity. It is also possible to design both **smooth** and **anti-slip** surfaces.
Average value of electrical resistance R_E: smooth surface 10^4 - 10^6 Ω / anti-slip surface < 10^9 Ω.
AB-ZEROPOX 843 AS is applied in conjunction with the intermediate conductive coating **AB-ZEROPOX 860 LS** onto compatible **AB-ZEROPOX** - primers / key coats and is suitable for offices, laboratories and other indoor projects with high requirements to room climate. **AB-ZEROPOX 843 AS** meets the strictest criteria regarding the lowest emissions of indoor air pollutants.

Consumption:

Minimum 2.0 - maximum 3.0 kg/m².

Resistant to:

- water
- diluted acids and alkalis
- saline solutions
- wet temperature max. 40°C
- solvents (please consult us)
- see list of chemicals that it is resistant to
- lubricants and fuels
- dry temperature short-term max. 60°C

Technical Data:

Mixing ratio A : B	100 : 20 by weight (5 : 1)
Density (23°C)	approx. 1.60 g/cm³
Volume solids	approx. 100 %
Viscosity (23°C)	approx. 2500 mPa·s ± 500
Compressive strength (DIN EN ISO 604)	> 60 N/mm²
Shore D - hardness (DIN EN ISO 868)	approx. 80
Tensile strength (DIN EN ISO 178)	45 N/mm²
Abrasion (1000 g / 1000 rev.) acc. to Taber	55 mg

Details for application:

Pot life (12°C / 23°C / 30°C)	approx. 60 minutes / 45 minutes / 25 minutes
Substrate temperature	minimum 12°C up to maximum 30°C
Material temperature	15°C - 25°C
Maximum relative humidity of air	at 12°C: 75 % (dew point +3°C) at > 23°C: 85 % (dew point +3°C)
Curing time / foot traffic (12°C / 23°C / 30°C)	48 hours / 24 hours / 20 hours
Curing time / mech. resistance (12°C / 23°C / 30°C)	96 hours / 72 hours / 48 hours
Curing time / chem. resistance (12°C / 23°C / 30°C)	8 days / 6 days / 4 days
All above values are approximate and may be used as a guideline for specifications	

Packaging:

30 kg - pails

Colour:

pebble grey approx. RAL 7032 (other colours are 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. Please consult us.

1. Surface preparation
Prior to the application the substrate must be prepared by mechanical means using qualified equipment e.g. Blastrac® shot blasting.
Minimum requirements:
- free of cement laitance, dust, oil, fat and other contaminants
- open textured, absorbent surface
- pull off strength min. 1.5 N/mm²
- concrete residual moisture max. 4 %

Depending on the condition of the substrate the surface must be made non-porous by the application of a primer and / or key coat using **AB-ZEROPOX 803**.
On concrete surfaces where there is rising damp, residual moisture or damp concrete of maximum 6 %, AB-ZEROPOX 810 must be used. Please consult us!
As **AB-ZEROPOX 860 LS** is a conductive intermediate coat it must be applied evenly. Prior to the application of **AB-ZEROPOX 860 LS**, the connection to earth must be installed using spliced copper cable and controlled in accordance with its function and adhesion.
See also "general preparation and application instructions" sheet.

2. Application
Prior to mixing, the temperature of the components must be between 15 - 25°C. Mix the components 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. ***Do not add any fillers, because they will impair the conductivity***. Distribute the mixture immediately onto the surface. To apply use a notched trowel (rubber or metal). Spread **AB-ZEROPOX 843 AS** as an even coat ensuring uniform thickness. **The freshly applied coating should be finished off with a spiked roller within 5 minutes to achieve an excellent surface and conductivity.** 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. Both high and low temperatures will influence the filler ratio and the consumption per m².

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).

Key coat:
AB-ZEROPOX 803 + quartz sand
Consumption: approx. 0.6 kg/m² resin plus quartz sand, **no** quartz sand to be sprinkled on the surface.

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.

Self-levelling coating:
AB-ZEROPOX 843 AS, pebble grey
Consumption: 2.0 - max. 3.0 kg/m².

Anti-slip surface:
Primer, key coat, connection to earth and conductive coating as before, then continue as follows:

Wearing coat:
AB-ZEROPOX 843 AS, pebble grey
Consumption: approx. 0.8 kg/m², broadcast with silicon carbide (4 kg/m²) favour **F36**.

Topcoat / sealer:
AB-ZEROPOX 843 AS, pebble grey
Consumption: approx. 0.8 kg/m².
Non-slip classification approx. R11

N/B:
Should flooring renovation take place or a subsequent coating be applied, there will be no conductivity properties. Please consult us.

N/B:
UV radiation cause 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

Acetic acid 5 %	resistant
Acetic acid 10 %	short-term
Ammonia 5 %	resistant
Boric acid 4 %	resistant
Chlorine bleach 6 %	resistant
Citric acid < 10 %	resistant
Distilled water	resistant
Formaldehyde 37 %	resistant
Formic acid 2 %	resistant
Formic acid 5 %	short-term
Hydrochloric acid 10 %	resistant
Hydrochloric acid 30 %	short-term
Lactic acid 10 %	resistant
Methylene chloride	not resistant
Nitric acid 10 %	resistant
Petrol / Super	resistant
Phosphoric acid 25 %	resistant
Saline solution	resistant
Sodium lye 50 %	resistant
Sulphuric acid 40 %	short-term
Tannic acid solution	resistant
Xylene	short-term

Tested for 3 months at 20°C; whether discolouration did occur was not considered.

6. Packaging
30 kg - sets
25 kg component A
5 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.

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