# Technical Data Sheet

# AB-ZEROPOX® 860 LS

2-C-EP-conductive coating, water-based

**Description:**

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

**Characteristics:**

- electrically highly conductive
- resistance average value 1 - 5 x $10^3$ Ω
- slight odour
- easy to apply
- economical
- inert and harmless once cured

**Application:**

**AB-ZEROPOX 860 LS** is a conductive intermediate coating used in conjunction with the electrostatically conductive **AB-POX**- and **AB-PUR**- resp. **AB-ZEROPOX**- and **AB-ZEROPUR**-systems. When using **AB-ZEROPOX 860 LS** in confined areas ensure that there is adequate ventilation. The water in the product must be provided every opportunity to evaporate / dissipate. Insufficient ventilation may have an affect on the curing.

**N/B:** To achieve the viscosity required for the application, 10 % of potable water must be added whilst mixing constantly!

**Consumption:**

At least 0.1 - max. 0.13 kg/m² plus 10 % water.

**Technical Data:**

| | |
|---|---|
| Mixing ratio A : B | 100 : 350 by weight (1 : 3.5) |
| Density (23°C) | approx. 1.10 g/cm³ |
| Volume solids | approx. 45 % |
| Viscosity (23°C) | approx. 800 mPa·s ± 250 (without water) |

**Details for application:**

| | |
|---|---|
| Pot life (12°C / 23°C / 30°C) | approx. 50 minutes / 45 minutes / 30 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)<br>at > 23°C: 80 % (dew point +3°C) |
| Duration between applications<br>(should the duration between coats be too soon, curing of the subsequent coat will be affected) | 12°C: min. 24 hours max. 72 hours<br>23°C: min. 12 hours max. 48 hours<br>30°C: min. 6 hours max. 24 hours |
| Curing time / foot traffic (12°C / 23°C / 30°C) | 24 hours / 12 hours / 4 hours |
| All above values are approximate and may be used as a guideline for specifications | |

**Packaging:**

13.5 kg - pails

**Colour:**

black

**Storage:**

6 months, unopened in original drums under dry conditions and a temperature of 15 - 25°C. At temperatures < 15°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!**
On the prepared surface the connection to earth must be installed in accordance with the guidelines using spliced copper cable. The connection to earth must be installed within a radius of approx. 10 metres, which equates to every 20 metres. Areas that are separated by a joint must be connected by installing a loop. The connection to earth must be controlled and tested by qualified electricians. We recommend that the exact details with regard to the installation of the connection to earth are decided well before the start of the application. Ensure that the connection to earth has excellent adhesion to the coating surface.
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. ***After mixing, 10 % potable water must be added whilst stirring constantly to achieve the required viscosity for the application!*** Distribute the mixture immediately onto the surface. To apply **AB-ZEROPOX 860 LS** use a suitable lambskin roller to create a thin and even thickness.
A too thick coating and ponding water will affect the conductivity and cause cracking. Always ensure when applying **AB-ZEROPOX 860 LS** that there is adequate ventilation. Due to the aqueous nature of the product, insufficient ventilation will prevent the evaporation of water, and therefore have an affect on the curing. **Once cured, the conductivity of the coating must be tested (100 volt measuring instrument)**. 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 / levelling 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 plus 10 % water.

AS- and ESD - coatings:
All suitable AS- and ESD - systems can be applied to the conductive layer. Please ask for advice if necessary.

**N/B:**
Whilst applying the self-levelling coating with a metal rake you have to avoid too heavy mechanical stress on the conductive coating layer. Otherwise discolouration is possible which will be visible at the surface. For application of the coating we recommend to use a rubber rake.

**4. Packaging**
13.5 kg - sets
3.0 kg component A
10.5 kg component B

**5. Health and safety**
**GISCODE: RE20**
Avoid inhalation of the vapours and contact with skin. 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.

**6. EU Directive ("Decopaint-RL"):**
Acc. to the EU Directive 2004/42/EG the maximum allowed content of VOC (Product category AII / j / type WB) is 140 g/l (Limit 2010) for the ready to use product. This product is in accordance with the EU Directive 2010.



**AB-Polymerchemie GmbH**
Tjüchkampstraße 21 - 24
D - 26605 Aurich
Tel.: +49 (0)4941 - 604360
Fax.: +49 (0)4941 - 6043643
info@ab-polymerchemie.de
www.ab-polymerchemie.de