

Prokol FerroTeq 960-ESD

Description and application

Prokol FerroTeq 960-ESD is an electrically conductive, high-solid, 2-component coating based on polyaspartic which has special mechanical properties. The coating was developed using a high-solid technique followed by long lasting practical tests where the most important conditions were functionality and the processing of the coating.

As a protection and/or coating for (copper) pipes, tanks, containers, concrete or steel surfaces such as floors where electrical conductivity is required.

Available certificates:

- Independently tested by TÜV Süd - Germany. The measured surfaces with Prokol FerroTeq 960-ESD are electrostatically dissipative in terms of TRGS 727 for floors in hazardous areas.
 - Electrical leakage resistance: $<10^7$ ohm
 - The measured values on metal: 340 to 410 Mohm.
 - The measured values on concrete: 500 Mohm.
- Independently tested by PRA UK report PRA77780-051b.

Article number and packaging

17965-5	5,17 kg set (hardener Prokol L-2500)
17965-10	10,35 kg set (hardener Prokol L-2500)

Properties

- Anti-corrosive
- Wear-resistant
- High UV resistance
- Water-repellent and therefore easy to clean
- Performance characteristics are already achieved at minor layer thicknesses
- Quick-drying without the application of heat
- Shortens the turnaround time within a production process
- Easy to clean
- Maximum performance even with thin layers
- Low shear resistance
- Top coating system for harsh conditions
- Up to 90% VOC reduction
- Up to 65% CO2 reduction

Independently tested for:

Hardness – BS AND ISO 1580	Complies
Cross Cut adhesion – BS AND ISO 2409	Complies
Submersion in water – ISO 2812-2	Complies
Humidity – ISO 11503	Complies
QUV – ISO 11507	Complies

Taber wear resistance – ISO 5470-1	Complies
Impact resistance – ISO 6272-1	Complies
Solvent resistance – ISO 2812-1	Complies
Cleanability – ISO 2812-1	Complies
Corrosion resistance – ISO 1197-1	Complies
Salt spray test – ISO 9227-NSS	Complies

This extensive report is available on request.

Thermal

Load	Dry heat
Permanent	+80 °C
Brief (a maximum of 7 days)	+100 °C
Brief (a maximum of 12 hours)	+120 °C

Short-term wet heat up to a maximum of +80 °C and only occasionally, for instance when steam-cleaning. Simultaneous chemical and mechanical loads are not permitted.

Properties liquid product

Colour	Available in RAL colours, see colour overview. <i>Other colours are available on project basis and on request.</i>
Finish	Gloss <i>Novo Gloss Trigloss 60 degrees. 40 degrees after 96 hours.</i>
Density	1,43 kg /l mixed product A component 1,475 kg /l B component 1,130 kg /l
Viscosity*	A component approx. 1500 MPa B component approx. 1000 MPa
Volume solids	>89%
VOC quality	85 g/l
Shelf life	In original and unopened packaging; 12 months at a temperature of between 5 °C and 40 °C.

Application information

Method	Brush, roller, cup gun, air mix and air-less
Usage	0,25 kg/m ² /layer
Theoretical usage	6 – 10 m ² /l
Practical usage	Depending on the object and conditions.
Mixing ratio	3 volume parts base: 1 volume part hardener
Potlife**	Approx. 25 minutes <i>The viscosity will increase during processing.</i>

* At 20 °C and 65% RH surface.
** At 1 kg and 20 °C product.



Tel. +31 (0)85 78 200 20 • Fax. +31 (0)85 78 200 21
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Spraying pressure	80 – 160 bar 2-K air mix, nozzle 15" 40/60 degrees.
Coverage	Very high covering capacity at minor layer thicknesses of approx. 50 µm. For some colours a 2 nd layer could increase the covering capacity.
Layer thickness	80 – 120 µm <i>Depending on application method.</i>
Dew point	The temperature of the surface must be 3 °C above the dew point
Recoat time*	After 4 hours
Dust dry*	After 35 minutes
Handling*	After 55 minutes
Fully cured*	After 4 x 24 hours
Dilution	ProFast TH-S. A maximum of 3%, depending on the used equipment, application method and temperature of the mixed product. Do not add until base and hardener have been mixed.
Cleaning agent	Roca Cleaner R5518 (equipment)

The times and values given are approximate and are affected by fluctuating surface and environmental conditions such as (product)temperature, relative humidity and layer thickness.

Mixing instructions

2-component products must always be mechanically mixed, preferably with a continuously adjustable mixing machine on low speed (300 – 400 RPM) or other suitable mixing equipment. Use a clean mixing rod which matches the size of the container. Mixing too fast and too long should be avoided in order to minimise air entrapment.

First mix component A until it is a homogenous mixture. Add component B (completely drained or scraped) to component A and mix at least 2-3 minutes until it is a homogenous mixture. To exclude unmixed materials (bottom/sides) are processed, transfer the mixture to a clean mixing bucket/tub and mix again.

When mixing parts, both components must be mixed separately and carefully and weighed accurately.

Notes during application

Allow the material to acclimatize for at least 24 hours. Avoid wide temperature differences between the product and the surface as this could have an adverse effect on the end-product.

2-component products may only be applied when the relative humidity is between 35 - 90%. High humidity will result in faster curing and low humidity will result in slower curing. The potlife is partly dependent on the product temperature.

Surface and circumstances

Metal surfaces

The surface must be free of substances that can negatively affect the adhesion, such as dirt, dust, grease and oil. Prior to applying the coating, it is recommended to clean the surface with a suitable alkaline cleaning agent.

System 1

- Surface blasting, Sa 2,5, 75 -100 microns, DIN EN ISO 12 944. Then thoroughly remove all dust from the surface. Formation of surface rust must be avoided at all times.
- Treat the surface with Prokol FerroTeq 125-AC and leave it to dry for 30 minutes.
- Then add a layer of Prokol FerroTeq 960-ESD with a spread of 80 - 120 µ.
- For some colours a 2nd layer could increase the covering capacity.

System 2

- Assuming a phosphated surface.
- A layer of Prokol FerroTeq 960-ESD with a spread of 80 - 120 µ.
- For some colours a 2nd layer could increase the covering capacity.

Important

Projects and applications can vary greatly. Always contact your supplier if you have doubts about a certain application, choice of material or surface treatment.

All the technical information given in this technical information sheet is based on laboratory tests. Information can change, depending on the conditions.

Legal notification

The information and, in particular, the recommendations concerning the application and final use of Prokol products is issued in good faith based on Prokol's current knowledge and experience of products that are correctly stored, handled and applied under normal conditions.

In practice, the differences in materials, surfaces and local conditions are such that no guarantee can be given concerning the marketability or suitability for a certain objective, nor can any

* At 20 °C and 65% RH surface.
** At 1 kg and 20 °C product.



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liability arise from any legal relationship based on this information, nor from any written recommendations or other advice that is given. The property rights of third parties must be respected.

Prokol guarantees that its products are free from manufacturing faults. Multi-component products are a finished product once the components have been mixed and processed. When mixed and processed correctly, the product will achieve the specifications given. Prokol can only guarantee the product when surfaces are processed and pre-treated correctly.

All orders are accepted under the current sales and delivery conditions. Users must always refer to the most recent product safety information sheet and product information sheet for the product concerned.

Copies of the most recent editions are provided upon request and are available at www.prokol.com.

The publication of this product information sheet makes all previous product information sheets for this product invalid.

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