

Aquoxy ESD

Water base epoxy conductive under coat

Description

Aquoxy ESD is a dark coloured, solvent free water based, 2 component conductive coating for ESD applications. Aquoxy ESD is based on water borne epoxy chemistry incorporating conductive additives and is used as conductive under coat prior to any ESD Floor or wall coverings.

Uses

As under coat prior to ESD top coat.

Key features

- VOC free, eco friendly
- Constant reading
- Non inflammable
- Volumetric ratio of mixing



Certified

Properties

| | | | |
|--------------------------------|---|--------------------------------|---------------------------------------|
| Type | : Waterborne epoxy cured with polyamine | Mixing ratio Resin to Hardener | : 3 : 1 by volume |
| Finish | : Smooth, matt | Colour | : Black |
| Pot life @ 27°C ASTM D 2471 | : 60-100 minutes | Solids % ASTM D 2697 | : 50% |
| Drying time ASTM D 1640 | | Recommended DFT ASTM D 7091 | : 100 microns |
| Surface dry | : ≥ 2 hrs | Application | : By roller / brush / spray |
| Tack free dry | : ≥ 7 hrs | Resistance value ASTM F 150 | : 1×10^4 ohm |
| Hard dry | : ≥ 24 hrs | Shelf life | : 12 months in the unopened container |
| Recommended thinner | : PUT 502 (Clean up) | | |

Performance data

The mandatory performance parameters as per FeFRA and EFNARC guidelines for resin flooring system

Pull of adhesion test
ASTM D 7234-2022 : ≥ 2 MPa on M20 grade concrete or concrete failure

Note : The typical physical properties given above are derived from testing in a controlled laboratory environment. Results derived from testing field-applied samples may vary, dependent on actual site conditions

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APPLICATION INSTRUCTIONS

Surface preparation

The long-term durability of the applied Aquoxy ESD is dependent upon the adhesive bond achieved between the flooring material and substrate. It is most important therefore, that substrate surfaces are correctly prepared prior to application. Ensure that the residual moisture level in the concrete is above 5%. All substrates should be sound and free from contamination such as mortar and paint splashes, curing compound residue, oil, or grease. Excessive laitance should be removed by light mechanical scrubbing, grinding or grit blasting. Oil and grease contamination must be completely removed by grinding down to sound, clean concrete. Alternatively, blasting techniques can be used to provide the required substrate.

Priming

Prepared substrates to be treated with Aquoxy ESD coating, should be primed with Cipoxy 17/18 should be mixed in the proportions supplied by adding the entire contents of hardener can to the base can. Once mixed the material should be immediately applied in a thin, continuous film using stiff brushes or rollers. Over application and puddles should be avoided. Porous floors may require two coats of Cipoxy 17 / 18. It should be allowed to become tack free prior to application. Primer coverage will depend on the texture and porosity of the substrate and also the application thickness.

Mixing & Application

AQUOXY ESD Resin and Hardener is supplied separately in 20 litre pack. Mix the same in the recommended ratio of 3:1 by volume. Solvent or thinners should not be added. The resin contains fillers and additives and hence should be shaken well before using. A forced action mixer with a paddle fitted into a heavy duty, slow speed electric hand drill is recommended for mixing. The material is poured onto the primed substrate and spread to the required thickness with a notched trowel. Deaerate the layer by a spike roller and allow to cure for 24 hours.

Packaging and theoretical coverage

Aquoxy ESD : Resin and Hardener available in 20 litre : 1 litre covers 5 sqm @100 microns
packing

Storage and handling

The product should be stored in accordance with national regulations. It should be kept in a cool, well ventilated area, away from heat, direct sunlight, sparks and children. Handle with care. Mix resin and hardener as per the ratio. Use the mix solution within the pot life time.

Health and safety precautions

Please refer to MSDS. Observe reasonable care and employ ordinary hygienic principles such as washing the hands with soap and water before eating or smoking. It is recommended to wear gloves, goggles and nose masks while application. In case of splashes on the skin, dampen the cloth with thinner PUT 503 and wipe the hands with the cloth. Wash then with soap and water. Dried film is non toxic. In case of contact with eyes, rinse with plenty of water and seek medical advice. In case of continuous exposure to vapour, the applicator should be immediately moved to get fresh air. The disposal of excess or waste material should be carried out in accordance with the local legislations.

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Limitations

It is not compatible for application over asphalt, unmodified sand-cement screeds or PVC tiles and sheets. AQUOXY ESD coating laid floor will be scratched due to nails or sharp objects protruding from machinery, packings, or trolleys moving on the floor. Presence of sand will also cause abrasion. The product is not advised to be applied below 15°C as the flow reduces. While applying the product above 35°C, there can be a problem of low pot life etc., and it will be difficult to apply the material. Cured product is not suitable for exposure to sub-zero temperatures and above 65°C.

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