

Statguard ESD 108

Static dissipative grade ESD flooring

Description

Statguard ESD 108 system is defined as a resinous static control flooring system that can dissipate static charges by grounding personnel, equipment or other objects contacting the floor surface. Formulated with static dissipative grade antistats to both reduce tribo electric charging and create a static dissipative surface, Statguard ESD 108 system safeguards sensitive electronic components during manufacture or service. In industries where static electricity can result in significant damage, injury and financial loss, Statguard ESD 108 flooring is highly recommended. It is a multi layered self levelling system that hardens to an attractive, high strength flooring which is 3X of concrete's strength. The system includes a primer, conductive middle coat and a self levelling top coat with antistats. Statguard ESD 108 is a static dissipative flooring system where the surface resistivity is within the range of 1×10^6 ohms and 10^9 ohms

Uses

- Electronics manufacturing and electronic maintenance repair shops
- Data processing computer facilities
- Clean rooms
- Aircraft hangars

Key features

- Higher mechanical properties than concrete
- Durable and low maintenance
- Constant level of conductivity
- Superior chemical resistance
- Seamless
- Available in attractive shades
- Meets EOS/ESD standard 7.1 or NFPA 99 A guidelines

Properties

Type	: Epoxy
Mixing ratio	: Pre-weighed packs
Finish	: Glossy
Colour	: Desired shade

Pot life @ 27°C

ASTM D 2471 : ≥ 40 min

Drying time ASTM D 1640

Surface dry : ≥ 2 hrs

Tack free dry : ≥ 8 hrs

Hard dry : ≥ 24 hrs

Recommended DFT

ASTM D 7091 : 1000 microns

Application : Notched trowel and spike roller

Theoretical coverage : 10 sq mt / set @ 1mm

Recommended thinner

Clean up : PUT 502

Shelf life : 12 months in the unopened container

Performance data

Compressive strength : ≥ 40 MPa

Tensile strength

ASTM D 638 : ≥ 10 MPa

Abrasion resistance

ASTM D 4060 : ≤ 70 mg loss

Flexural strength

ASTM D 790 : ≥ 10 MPa

Hardness, Shore D

ASTM D 2240 : ≥ 75

Surface resistivity

ASTM F 150 : $1 \times 10^6 - 1 \times 10^9$ ohms

Chemical resistance : Excellent resistance is observed against distilled water, detergent solutions, alkalies and acids. Chemical spillages should always be wiped up as quickly as possible and not be allowed to concentrate up by evaporation. The data on the list of the chemicals found resistant to this product during our lab study is available on request.

Directions to use : The concrete floors should be minimum 28 days old and the moisture content should be less than 5% before application of ESD system. The concrete must be clean, dry and sound. For surface preparation of concrete, refer to SSPC-SP13/ NACE 6 "surface preparation on concrete" for detailed guidelines. The entire surface should be roughened by abrasive blasting to remove all the laitance and obtain a surface profile of about 150-200 microns.

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Priming & screeding : The application of primer which forms an excellent bond with the concrete seals the substrate from the moisture. It insulates against latent electrical properties in the existing floor, ensuring a neutral field on which the system is built up. The prepared surface shall be applied with two component epoxy primer Cipoxy 14 or 15 by roller with a spreading rate of 5 sq m per litre to achieve 200 microns and allow it to dry for 8 hours. As per the system thickness, a screed layer is laid.

Fixation of Copper tape : This is to ensure that Statguard ESD 108 system is connected to a permanent earth ground to achieve an electrical equipotential plane (EP). The ground couple is established over the primed layer with a conductive copper tape. (Ref: "Standard for protection of electrostatic discharge susceptible terms-groundingrecommended practice- EOS/ESD S6") The self adhesive copper tape is stuck at the peripheries of the floor and joined to the ground. All concrete slabs are electrically connected across the expansion and control joints by fixing copper tape.

Conductive middle coat : This layer forms the electrical plane through which static charges are dissipated. Two component, Aquoxy ESD is applied by brush /roller at a spreading rate of 7.5 sq m per litre to achieve a DFT of 100 microns. Allow the coating to cure for 12 hours.

Self levelling topcoat : Statgurd ESD 108 is supplied in pre-weighed packs. Unpack resin and pour into a mixing bowl, add antistats and mix for 1-2 minutes. Add hardener, colourant and aggregates one by one under stirring and continie mixing for 3-4 minutes using slow speed drill fitted with helicle mixer. Pour the mix immediately on the floor and spread to a uniform thickness with a notched trowel. The surface is then de-aerated with the aid of spike roller to dislodge air pockets. Avoid excess spiking. The film is allowed to cure for 24 hours.

Pakaging : Statguard ESD 108 is available in pre-weighed kits and has a maximum shelf life of 12 months in the unopened container

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.

Health & Safety precaution : 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. Incase 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. Incase of contact with eyes, rinse with plenty of water and seek medical advice. Incase 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

Disclaimer

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