

# Statguard FF 108

Carbon fibre free, static dissipative flooring

## Description

Statguard FF 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 anti-stats to both reduce tribo-electric charging and create a static dissipative surface, Statguard FF 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 FF 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. Statguard FF 108 does not employ carbon fibres, but employs a third generation anti-stat to impart a static dissipative flooring system where the surface resistivity is within the range of  $1 \times 10^6$  and  $10^9$  ohms

## Uses

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

## Key features

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

## System details : 1.3 mm

- Primer : Cipoxy 15 : 200 microns
- Fixation of conductive copper tape
- Conductive coat : Aquoxy ESD : 100 microns
- Top coat : Statguard FF 108 : 1000 microns

## Properties

Type	: Epoxy
Mixing ratio	: Pre-weighed packs
Finish	: Glossy

Colour	: Desired shade
Pot life @ 27°C	
ASTM D 2471	: $\geq 40$ min
Drying time ASTM D 1640	
Surface dry	: $\geq 2$ hrs
Tack free dry	: $\geq 8$ hrs
Hard dry	: $\geq 24$ 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	: $\geq 45$ MPa
Tensile strength	
ASTM D 638	: $\geq 7$ MPa
Abrasion resistance	
ASTM D 4060	: $\leq 65$ mg loss
Flexural strength	
ASTM D 790	: $\geq 18$ MPa
Hardness, Shore D	
ASTM D 2240	: $\geq 85$
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 FF 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 :** Statguard FF 108 is supplied in pre-weighted packs. Unpack the contents into the mixing bowl, one by one under stirring and continue mixing for 3-4 minutes using slow speed drill fitted with helix 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.

**Packaging :** Statguard FF 108 is available in pre-weighted 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. 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

### Disclaimer

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