Statguard FF 108

Carbon fibre free, epoxy based, 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. The system includes a primer, copper tape, 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 x 10⁷ ohms and 6.5 x 10⁷ ohms, which is within the dissipative resistance range of 1x10⁶ - 1x10⁹ ohms.

Uses

Key features

- Electronics manufacturing and electronic maintenance repair shop
- Data processing computer facilities
- Clean rooms
- Aircraft hangars
- Petrochemicals units

- Seamless, achieve uniform resistance value
- Higher mechanical properties than concrete
- Durable and low maintenance
- Superior chemical resistance
- Seamless
- Available in attractive shades
- Meets EOS/ESD standard 7.1 or NFPA 99 A guidelines

Properties

Туре	: Ероху
Finish	: Glossy
Pot life @ 25ºC ASTM D 2471	: 40-50 min
Drying time ASTM D 1640 Surface dry Tack free dry Hard dry	: ≥ 2 hrs : ≥ 8 hrs : ≥ 24 hrs
Recommended thinner	: PUT 502 (Clean up)

Mixing ratio	: Pre-weighed packs
Colour	: Desired shade
Mixed density	: 1.43 gm / cc
Recommended DFT ASTM D 7091	: 1000 microns
Application	: By notched trowel and spike roller
Shelf life	: 12 months in the unopened container

Performance parameters

The mandatory performa FeFRA and EFNARC guid system	ince parameters as per delines for resin flooring	Other mechanic	al properties
Pull of adhesion test ASTM D 7234-2022	: ≥ 1.5 MPa for M20 grade concrete or	Tensile strength ASTM D 638	: 5 - 5.5 MPa
	Concrete failure	Flexural strength ASTM D 790	: 3 - 3.5 MPa
Impact resistance IS 101-PT 5 Sec 3	: Pass (1.8 kg - 100 cm)	Elongation ASTM D 638	: 9-10%
Abrasion resistance : Max 70 mg loss ASTM D 4060-2019		Hardness, Shore D ASTM D 2240	: 55-60
CS 17, 1 kg 1000 cycles		Surface resistivity ASTM F 150	: 1 x 10 ⁶ - 1 x 10 ⁹ ohms
		Slip resistance BS 8204	: 58 - 69 (PTV) very low risk of slip

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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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.

APPLICATION INSTRUCTIONS

Surface preparation

The long-term durability of the applied STATGUARD FF 108 flooring 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 below 5% and concrete strength is between 20-25 MPa. 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 scrabbling, 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 STATGUARD FF 108, should be primed with CIPOXY 17/18. Primer should be mixed in the proportions supplied by adding the entire contents of hardener can to the base can. Once mixed the CIPOXY 17/18 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. Primer 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.

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-grounding recommended 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 top coat

STATGUARD FF 108 is supplied in pre-weighted packs. Unpack resin and pour into mixing bowl, add colourant mix the material at least up to 30 seconds, then add hardener & aggregates simultaneously under steering and continue mixing for 3-4 minutes using slow drill fitted with helical 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.

Limitations

Self-smoothing is a term used in the flooring industry to describe a composition which after being spread to a uniform layer of appropriate thickness, develops a smooth, resin-rich surface. This self-smoothing action is very localized and does not eradicate irregularities of level present in the original substrate. It is most important, therefore, that adequate surface preparation and repair is undertaken prior to application. It is not compatible for application over asphalt, unmodified sand-cement screeds or PVC tiles and sheets. STATGUARD FF 108 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. When there is not enough material in a given area, roller marks caused due to spiked rolling may not close which will result in an undesirable finish. The product is not suitable for areas exposed to direct sunlight.

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Do's

Clean regularly	Drag any s	
Remove aggressive chemical spillage immediately	wheel trolle Expose to f	
Maintain wheel for proper rolling, should not get dragged.		
Nylon / teflon wheel trolleys are recommended	Expose to	
Handle heavy material gently and cautiously	by Manufac	
Immediately clean spillage of any oil or fatty liquid	Drop down	
which may cause accident during people's movement	Expose to	

Packaging and theoretical coverage

Drag any sharp and heavy object. Movement of metal wheel trolley Expose to fire or welding spark Expose to very high temperature than recommended by Manufacturer Drop down any heavy material on the floor Expose to highly corrosive chemicals

STATGUARD FF 108 is available in 11.12 kg clear set and has a maximum shelf life of 12 months in the unopened container. 1 set covers 8 sqm @ 1mm.

Don't

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 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. 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.

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