



Nitoflor Conductive*

Epoxy resin static conductive floor with resistance between 5×10^4 and 1×10^6 ohms

Uses

Nitoflor Conductive is suitable for use in areas where a static conductive floor with a resistance between 5×10^4 and 1×10^6 ohms is required as a measure to control static electricity, such as:

- Electronic manufacture and assembly
- hospital operation theatre
- hazardous dust and chemical environments
- clean rooms etc

Advantages

- Static control - provides static electricity with an effective passage to earth
- Seamless - smooth, hygienic surface which is easily cleaned, unlike vinyl tiles which are not seamless
- Durable - long term performance, accepts fork lift traffic, more durable than vinyl tiles
- Attractive - wide range of colours enhances working environment
- Resists most chemical spillage

Specification

The designated floor areas shall be surfaced with Nitoflor Conductive, a 2 mm thick flow-applied epoxy resin floor topping. The topping shall provide a surface and bulk resistance between 5×10^4 and 1×10^6 ohms when tested to DIN 51953 and ASTM F150-78 respectively.

Description

Nitoflor Conductive is a 2 mm thick epoxy resin floor topping with controlled conductive properties.

The system comprises an epoxy primer, conductive epoxy undercoat and a 2 mm thick epoxy top coat. It is available in a wide range of attractive colours and provides a highly durable, chemically resistant seamless floor.

Technical support

Fosroc offers a comprehensive technical support service to specifiers, end users and contractors. It is also able to offer on-site technical assistance, an AutoCAD facility and dedicated specification assistance in locations all over the world.

Design Criteria

Nitoflor Conductive is designed for application at a nominal thickness of 2 mm. It should be installed where a static conductive floor with resistance between 5×10^4 and 1×10^6 ohms is required. Nitoflor Conductive is designed to dissipate static electricity away from the source to earth.

Substrates should be dry and not suffer, or be likely to suffer, from rising damp. If necessary, suitable damp-proof membranes should be installed to prevent this. Substrates should not have relative humidity greater than 75% at the time of installation.

Properties

The test results below were determined on laboratory specimens and may vary from those obtained under site conditions.

Electrical Properties

Surface resistance (ASTM F 150 - 78)	: 5×10^4 to 1×10^6 ohms
Bulk resistance (DIN 51953) (ASTM F 150 - 78)	: 5×10^4 to 1×10^6 ohms
Charge decay (Fed. Spec. 101C Method 4046)	: 5000v to zero in less than 0.1 seconds
Body voltage decay (Stephen Halperin & Associate Ltd.)	: 5000v to zero in less than 0.4 seconds using conductive heel straps or shoes

Physical properties

Compressive strength (BS 6319)	: 60 N/mm ²
Flexural strength (BS 6319)	: 40 N/mm ²
Tensile strength (BS 6319)	: 18 N/mm ²
Abrasion resistance (Fed. Spec. 141A)	: 97 mg weight loss 0.03 mm depth of water
Impact resistance (BS 8204, Part1)	: 0.2 mm indentation
Cure time	@20°C @35°C
Food traffic	: 24 hours 18 hours
Vehicular traffic	: 48 hours 36 hours

Chemical properties

Nitoflor Conductive provides excellent resistance to a wide range of industrial chemicals.

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Instructions for use

Nitoflor Conductive should be installed by specialist applicators who must follow the procedures laid down in the Method Statement. Please contact your local Fosroc representative to obtain the Method Statement for correct application of Nitoflor Conductive.

Limitations

- Application should not commence if the temperature of the substrate is below 10°C
- Nitoflor Conductive should not be used on floors known to suffer from rising damp or have a relative humidity greater than 75% when measured in accordance with the BS 8203:87, appendix A or by a Vaisala thermohygrometer type 131
- Ensure adequate cover is taken to avoid exposing the material to a "wind tunnel" effect
- Nitoflor Conductive should not be applied to asphalt, unmodified sand/cement screeds, PVC tiles or vinyl

Estimating

Supply

Nitoflor Conductive	: 30 kg bags
Nitoflor Conductive U/C	: 5 kg bags
Nitoprime 31	: 1 & 4 litre can
Fosroc Solvent 102	: 4 & 20 litre cans

Coverage/Yield

Nitoflor Conductive	: 10 m ² /30 kg bag
Nitoflor Conductive U/C	: 35 m ² /5 kg pack
Nitoprime 31	: 4 - 5 m ² /litre

Storage

All products above have a shelf life of 12 months if kept in a dry store in their original unopened packages. Store in cool, dry conditions in original unopened packs. If stored at high temperature and/or high humidity conditions, the shelf life will be reduced.

Precautions

Health and safety

Nitoflor Conductive, Nitoflor Conductive undercoat, Nitoprime 31 and Fosroc Solvent 102 should not come in contact with skin and eyes, or be swallowed. Ensure adequate ventilation and avoid inhalation of vapours.

Some people are sensitive to resins, hardeners and solvents. Wear suitable protective clothing, gloves and eye protection. If working in confined areas, suitable respiratory protective equipment must be used.

The use of a barrier cream provides additional skin protection. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent.

In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed seek medical attention immediately - Do not induce vomiting.

Fire

Nitoflor Conductive base component, Nitoflor Conductive undercoat and Nitoprime 31 are non-flammable.

Nitoprime Conductive Hardener component and Fosroc Solvent 102 are flammable.

Flash points

Nitoflor Conductive hardener	: 39°C
Fosroc Solvent 102	: 33°C

* Denotes the trademark of Fosroc International Ltd.



Important note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Service.

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