

Nitoflor FC130

Water based, epoxy resin floor and wall coating

Uses

To provide a dust-proof easily cleaned surface this is resistant to most oils and liquids. It is suitable for use on walls and floors in warehouses, garages, light industrial and food processing areas, kitchens and other areas of pedestrian and light vehicular traffic.

Advantages

- Durable - good resistance to abrasion.
- Economical - easy to apply, minimizes cleaning costs.
- Water based - safe in use, low odour.
- Attractive - available in a range of colours.
- Good resistance to a wide range of chemicals.
- Antimicrobial - resistant to fungal and bacterial growth.

Standards compliance

Nitoflor FC130 complies with BS 476, Part 7: 1987-Class 1 spread of flame.

Description

Nitoflor FC130 is a two-component water dispersed epoxy resin coating system supplied in pre-weighed packs ready for on-site mixing and use. The cured film forms a hard, flexible, semi-matt seal to concrete and other substrates.

The product is available in a wide range of standard colours and is also available in a clear grade.

Technical support

Fosroc offers a comprehensive range of high performance, high quality flooring, jointing and repair products for both new and existing floor surfaces. In addition, the company offers a technical support package to specifiers, end-users and contractors, as well as on-site technical assistance in locations all over the world.

Design criteria

Nitoflor FC130 is designed for application in two coats to achieve an approximate total dry film thickness (DFT) of 100 microns.

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 a relative humidity greater than 80% at the time of installation.



Nitoflor FC130 CUSIB: (43) P14 1993

Properties

The values given below are average figures achieved in laboratory tests. Actual values obtained on site may show minor variations from those quoted.

Physical properties

	@ 20°C	@ 35°C
Pot life*:	2 hours	1 hour
Time between coats:	6-24 hrs	4-16 hrs
Initial hardness:	24 hours	16 hours
Full cure:	7 days	7 days
Dry Film Thickness (DFT) (2 coats):	100 microns (approximately)	

***Note:** that after the pot life has expired the material, although not hardened, may not have increased in viscosity but the characteristics of the product change. Excess material should be discarded after this point.

Chemical properties

Nitoflor FC130 is resistant to a wide range of chemicals. Specific data is available on request.

Good housekeeping is essential in areas where chemical spillage is likely to occur. It is especially important that such spillage should not be allowed to dry since very much higher concentrations of chemicals will then result.

Maintenance

The service life of a floor can be considerably extended by good housekeeping practices. Regular cleaning of Nitoflor FC130 may be carried out using a rotary scrubbing machine with a water miscible cleaning agent or by hot water washing at temperatures up to 50°C.

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Specification clauses

Epoxy floor coating

The floor coating shall be Nitoflor FC130, a two-component water dispersed epoxy suitable for application by brush or lambs-wool roller. The coating shall be applied in two coats to achieve a total Dry Film Thickness (DFT) of approximately 100 microns.

Application instructions

Surface preparation

It is essential that Nitoflor FC130 is applied to sound, clean, dry substrates in order to achieve maximum adhesion between the floor coating and substrate.

Because Nitoflor FC130 is a relatively thin coating, the substrate must be fairly smooth. Any surface irregularities may show through causing excessive wear on high spots and changing the perceived colour of the coating.

New concrete floors

Unless water: cement ratio is below 0.45, the floor should be at least 28 days old and give a hygrometer reading not exceeding 80% RH when tested in accordance with BS 8203 Appendix A. Dry removal of laitance by light grit blasting or grinding is preferable but, where this is not feasible, treat with Fosroc Acid Etch, followed by thorough rinsing with water and complete drying. Dust and other debris should then be removed by vacuum brush.

Old concrete floors

A sound, clean substrate is essential to achieve maximum adhesion. Light grit blasting, diamond grinding or acid etching should be carried out as for new concrete floors. Oil and grease penetration should be removed by hot compressed air treatment and primed with a single coat of Nitoprime 31.

Epoxy screeds

Nitoflor FC130 may be applied to Fosroc epoxy resin screeds. High spots or trowel marks should be rubbed down and dust and other debris removed by vacuum cleaning.

Asphalt floors

Nitoflor FC130 can be applied to asphalt floors provided they are at least 12 months old.

Mixing

The individual components of Nitoflor FC130 should be thoroughly stirred before the two are mixed together. The entire contents of the base container should be poured into the hardener container and the two materials mixed thoroughly for at least 3 minutes. The use of a heavy duty slow speed drill fitted with a mixing paddle is desirable.

Coating

The mixed Nitoflor FC130 should be applied to the prepared surface using a brush, lambs-wool roller or airless spray. Ensure that the area is completely coated and that 'ponding' of the material does not occur since water may be trapped within the product, thus preventing complete cure.

The second coat may be applied as soon as the first coat has initially dried (typically 12-18 hours). The time will be dependent on the type of surface and the ambient conditions.

Good drying conditions are required to allow complete evaporation of the water as the resin cures. Adequate ventilation and air movement is necessary.

Use with Cemtop

Nitoflor FC130 can be used to overcoat Cemtop 250T to provide a more easily cleaned, chemically resistant surface. Apply two coats of Nitoflor FC130 as described above, generally 24 hours after the installation of Cemtop 250T.

Cleaning

Nitoflor FC130 should be removed from tools and equipment with clean water immediately after use. Nitoprime 31 should be removed from tools and equipment using Fosroc Solvent 102. Hardened material can only be removed mechanically.

Limitations

Nitoflor FC130 should not be applied on to surfaces known to suffer from rising damp or having a relative humidity reading greater than 80% when tested in accordance with BS 8203 Appendix A or by a Vaisala thermo-hygrometer Type HMI 31.

The durability of Nitoflor FC130 in foot traffic areas is reduced in areas of very heavy traffic such as around work benches, drinks machines etc. It is advisable to either:

- a) Specify additional coats in such areas or,
- b) Specify a higher build system such as Nitoflor SL range in such areas (see separate data sheet)

Nitoflor FC130 should not be applied at temperatures below 10°C or where ambient relative humidity exceeds 85%.

The low odour characteristic of Nitoflor FC130 is not necessarily an indication of non-tainting characteristics. Where tainting of food stuffs during application is possible we recommend separate tests are carried out in this instance, please contact the local Fosroc office.

Nitoflor FC130

Estimating

Supply

Nitoflor FC130:	5 Kg Packs
Fosroc Acid Etch:	30 Litres Drums
Nitoprime 31:	1, 5 & 15 kg Packs
Fosroc Solvent 102:	4 & 25 Litre Packs

Coverage

Nitoflor FC130:	
First coat:	6 - 8 m ² per kg
Second coat:	8 - 10 m ² per kg
Nitoprime 31:	4 - 5 m ² per kg

The coverage figures are theoretical - due to wastage factors and the variety and nature of possible substrates, practical coverage figures may be substantially reduced.

UN packaging regulations

To comply with current regulations all products of a hazardous nature, which are subjected to a sea crossing as part of their delivery requirements, must be packed in UN approved receptacles.

When a known sea crossing is involved, whether locally or for export, Fosroc will supply in the correct UN packaging. Where Fosroc is requested to deliver within a mainland boundary, but the Purchaser intends to onward ship, it is incumbent upon the Purchaser to specify that UN packaging is required at the time of placing the order. Otherwise, once received, responsibility rests with the Purchaser. The use of UN packaging may affect the selling price of products. Please consult the local Fosroc Area Manager or office.

Storage

Shelf life

All products have a shelf life of 12 months if kept in a dry store in the original, unopened containers.

Storage conditions

Store in dry conditions between 10°C and 30°C, away from sources of heat and naked flames in the original, unopened packs. If stored at high temperatures the shelf life may be reduced. Nitoflor FC130 should be protected from frost.

Precautions

Health and safety

Nitoflor FC130, Fosroc Acid Etch, Nitoprime 31 and Fosroc Solvent 102 should not come in contact with the 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 barrier creams provide additional skin protection. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical attention immediately - if swallowed seek medical attention immediately - **do not** induce vomiting.

Fire

Nitoflor FC130, Nitoprime 31 and Fosroc Acid Etch are non-flammable.

Fosroc Solvent 102 is flammable. Keep away from sources of ignition. No smoking. In the event of fire, extinguish with CO₂ or foam. **Do not** use a water jet.

Flash points

Fosroc Solvent 102:	33°C
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Disposal

Spillages of component products should be absorbed on to earth, sand or other inert material and transferred to a suitable vessel. Disposal of such spillages or empty packaging should be in accordance with local waste disposal regulations.

For further information, refer to the Product Material Safety Data Sheet.

Additional Information

Fosroc manufactures a wide range of products specifically designed for the specialist flooring industry. These include liquid-applied, chemically-resistant coatings, self-levelling epoxy toppings and trowel-applied, highly abrasion resistant screeds.

For further information about products or publications, contact the local Fosroc office.



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 Services, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation, specification of information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products, whether or not in accordance with any advice, specification, recommendation of information given by it.



Fosam Company Limited

Head Office
Post Box 11081
Jeddah – 21453
Saudi Arabia

www.fosroc.com

Telephone: +966 12 637 5345

Fax: +966 12 637 5891

email: fosam@fosroc.com

Regional Offices

Jeddah Sales Office	Tel: (012) 608 0999	Fax: (012) 638 0693	Yanbu	Tel: (014) 322 4280	Fax: (014) 391 2980
Jeddah Showroom	Tel: (012) 665 0187	Fax: (012) 667 4844	Makkah	Tel: (012) 542 0869	Fax: (012) 542 0869
Riyadh	Tel: (011) 482 9303	Fax: (011) 482 7562	Medinah	Tel: (014) 855 0091	Fax: (014) 855 0047
Dammam	Tel: (013) 814 1282	Fax: (013) 814 1581	Jubail	Tel: (013) 362 3904	Fax: (013) 362 3875
Khamis Mushayt	Tel: (017) 250 0469	Fax: (017) 250 0469	CSD	Tel: (012) 608 0999	Fax: (012) 638 0693

Registered Office: Industrial Area, Phase 4, Road No. 102, Street No. 82