

Water based, epoxy resin floor and wall coating

Uses

To provide a dust-proof easily cleaned surface which 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

- Antibacterial - resists bacterial growth.
- Durable - good resistance to abrasion.
- Economical - easy to apply, minimises cleaning costs.
- Water based - safe in use, low odour.
- Attractive - available in a range of colours.
- Good resistance to a wide range of chemicals.

Standard compliance

Nitoflor FC130 complies with BS476, Part7:1987-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, 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.

Design criteria

Nitoflor FC130 is designed for application in two coats to achieve an approximate total dry film thickness 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.

Specification

Epoxy floor coating

The floor coating shall be Nitoflor FC130, a two-component water dispersed epoxy suitable for application by brush or lambswool roller. The coating shall be applied in two coats to achieve a total dry film thickness of approximately 100 microns.

"Nitoflor FC130 complies with ASTM E648 for average critical radiant flux : Class I"

Properties

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

Physical properties

	@ 23°C	@ 35°C
Pot life*	: 4 hours	2 hours
Time between coats	: 6-24 hours	4-16 hours
Initial hardness	: 24 hours	16 hours
Full cure	: 7 days	7 days
Dry film thickness (2 coats)	: 100 microns (approx.)	
VOC	: 9.6 g/l	

*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.

Instructions for use

Surface preparation

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

The substrate must be fairly smooth, as any surface irregularities may show through Nitoflor FC130 changing the perceived colour of the coating and causing excessive wear

Fosroc Nitoflor FC130

New concrete floors

The floor should be typically at least 28 days old and give a hygrometer reading not exceeding 80% RH when tested in accordance with BS 8203 Appendix A. For application at earlier stages contact your local Fosroc office for further advice. Dry removal of laitance by light grit blasting is preferable. 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 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 SP or Nitoprime 25.

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

When used to coat asphalt floors, under these circumstances Nitoflor FC130 can be applied to asphalt floors provided they are at least 12 months old.

When used as a primer for joints in asphalt substrate before the application of Colpor 200PF; asphalt should be at least 4 months old, contact your local Fosroc office for further advise.

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 Fosroc Mixing Paddle (MR3) is desirable.

Coating

The mixed Nitoflor FC130 should be applied to the prepared surface using a brush or lambswool roller. 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. If the overcoating window is missed the first coat must be abraded with a medium sand paper before application of the second coat.

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

Cleaning

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

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.

Limitations

- Nitoflor FC130 should not be applied on to surfaces known to, or likely to suffer from, rising damp or have a relative humidity greater than 75% as measured in accordance with BS 8203 Appendix A, or by a Hammond concrete/mortar moisture tester type COCO.
- 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 from Fosroc flooring range.
- Nitoflor FC130 should not be applied at temperatures below 10°C or where ambient relative humidity exceeds 85%.

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 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.

Fosroc Nitoflor FC130

Estimating

Supply

Nitoflor FC130	: 4.5 litre packs
Nitocote RI	: 4.5 litre packs
Fosroc Solvent 102	: 5 litre drums

Coverage

Nitoflor FC130	: 10.0 m ² /litre @ 100 microns wft/coat
Nitoprime SP	: substrate dependent 6-8m ² /litre
Nitoprime 25	: 5 m ² /litre

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

Storage

Shelf life

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

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.

Precautions

Health and safety

Nitoflor FC130, Nitoprime SP or Nitoprime 25 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 and Nitocote RI 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 regulation.

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

Fosroc Nitoflor FC130

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.

Among them are products suitable for use in:

- the food and drinks industry
- the pharmaceutical industry and
- in areas subjected to heavy industrial use.

Where the control of static electricity is an important consideration, Fosroc have developed conductive and dissipative seamless floor systems. In addition, a wide range of complementary products is available. This includes joint sealants, waterstops, waterproofing membranes and specialised products for the repair and refurbishment of damaged reinforced concrete.

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



"Refer to www.tbwcert.com for validity and full documentation"

* Denotes the trademark of Fosroc International Limited

† See separate data sheet



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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. **All Fosroc datasheets are updated on a regular basis. It is the user's responsibility to obtain the latest version.**

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