

Fosroc® Nitoflor FC130

Economical, chemical resistant, water based epoxy floor / 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

- Durable - good resistance to abrasion
- Economical - easy to apply, minimises cleaning costs
- Water based - low odour
- Good resistance to a wide range of chemicals
- Asphalt - can be applied to asphalt surfaces

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 resilient, semi-matt seal to concrete and other substrates.

The product is available in Silver Grey, Mid Grey and Clear.

Technical Support

Parchem 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.

Design Criteria

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

Additional coats may be required in high traffic areas.

Specification Clause

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.

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 hours	4 - 16 hours
Initial hardness:	24 hours	16 hours
Full cure:	7 days	7 days
Mix ratio (Clear) W/W:	25g Base : 100g Hardener	
Mix ratio (Coloured) W/W:	20g Base : 100g Hardener	
Dry film thickness (2 coats):	100 microns (approx.)	
Line-marking paint adhesion to coating:		
Dulux Roadmaster A1	Excellent	
Dulux Roadmaster A2	Excellent	

Note: After the pot life has expired, although not hardened, the characteristics of the product may 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. Refer to the Parchem "Guide to Industrial Floor Maintenance".

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 fine textured. Any surface irregularities may show through causing excessive wear on high spots and changing the perceived colour of the coating.

Fosroc® Nitoflor FC130

New concrete floors

Dry removal of laitance by light grit-blasting or diamond grinding is preferable but, where this is not feasible, treat with an acid wash, followed by a neutralising solution then 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 or acid etching should be carried out as for new concrete floors. Depending on the extent of the contamination, oil and grease penetration may be removed by hot compressed air treatment and primed with a primer coat of Nitoflor FC130. Adhesion tests must be carried out to confirm sufficient preparation.

Asphalt surfaces

Surfaces should not be coated if freshly laid since the asphalt will release volatile vapours which may blister the paint film. The asphalt should be 3 months old before coating and should be scrubbed with a detergent solution and allowed to dry before application. Note: Being a "flexible" material, asphalt may move more than can be accommodated by Nitoflor FC130 which could lead to cracks appearing in the coating.

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. Using a heavy duty slow speed drill fitted with a suitable spiral mixing paddle.

Mixing part packs

It is recommended that full packs be mixed, however for applications where smaller quantities of product are required, experienced applicators may elect to mix part packs using the mix ratio shown in the Properties section of this document. In doing so the contractor accepts the risk of any off-ratio mixing. Reliable scales should be used to weigh out individual components.

IMPORTANT: Once mixed the product should be poured into flat, open paint trays to maximise pot life working time. Holding the product in the original mixing can will lead to an exothermic reaction which will significantly reduce the pot life.

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. Airless spray application of Nitoflor FC130 is also acceptable however the first coat must be "back-rolled" with a roller immediately after application to assist the penetration of the coating into the concrete.

The second coat may be applied as soon as the first coat has initially dried (typically 8 - 24 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.

Slip resistance

To enhance slip resistance of the floor it is possible to lightly broadcast fine quartz sand (0.25mm) into the second coat while it is still wet; allow this to cure overnight then apply a third coat of Nitoflor FC130 to seal in the sand. This process is only suitable for foot traffic areas and not for vehicle / forklift traffic.

Cleaning

Nitoflor FC130 should be removed from tools and equipment with clean water immediately after use. Hardened material can only be removed mechanically.

Limitations

Note: To ensure a uniform colour, use only components with identical batch numbers in the one application area or contact Parchem for advice.

Nitoflor FC130 should not be applied on to substrates known to suffer from rising damp or having a relative humidity reading greater than 80%. Refer to Parchem for further advice.

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

The life expectancy of Nitoflor FC130 will be reduced in areas of very heavy traffic such as car park lanes, 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 Durafloor HP or SL in such areas (see separate Technical Data Sheet).

The low odour characteristics 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. The Parchem range of flooring products includes specific grades for use in food processing areas.

Being a semi-matt finish, Nitoflor FC130 may tend to scuff more than a gloss finish, however these marks can generally be removed with a detergent scrub.

Fosroc® Nitoflor FC130

Supply

Nitoflor FC130: 4 and 16 litre 2 component packs	
Nitoflor FC130 silver grey 4L pack:	FC612180-4L
Nitoflor FC130 clear hardener (16L pack):	FC612181-3.1L
Nitoflor FC130 clear base (16L pack):	FC612182-2.9L
Nitoflor FC130 silver grey hardener (16L pack):	FC612183-13L
Nitoflor FC130 colour base (16L pack):	FC612184-3L
Nitoflor FC130 mid grey hardener (16L pack):	FC612196-13L

Coverage

Nitoflor FC130:	
First coat:	6 - 8 m ² / litre
Second coat:	8 - 10 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

Nitoflor FC130 has a shelf life of 24 months from date of manufacture if kept in a dry store in the original, unopened bags or packs. Refer to the Use by Date indicated on the packaging.

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.

Important notice

A Safety Data Sheet (SDS) and Technical Data Sheet (TDS) are available from the Parchem website or upon request from the nearest Parchem sales office. Read the SDS and TDS carefully prior to use as application or performance data may change from time to time. In emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia) or a doctor for advice.

Product disclaimer

This Technical Data Sheet (TDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this TDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Parchem does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.