Nitoflor FC150EH*

constructive solutions

Solvent free high performance epoxy flooring

Uses

For use on industrial and commercial concrete floors where a smooth easy cleaned surface is required. Typical areas of use include food processing areas, clean rooms, laboratories, hospitals and light duty manufacturing areas.

Advantages

- **Hygienic:** provides an easy to clean dust free surface.
- **Range of colours:** enhances working environment.
- **Chemical resistant:** protects the concrete floor surface.
- **Safety :** Solvent free formulation.
- **Hard wearing:** good abrasion resistance and sound proof. Will withstand foot and light vehicular traffic.

Standard Compliance

GB/T 22374-2008

Description

Nitoflor FC150EH is a high performance epoxy flooring, capable of being laid with different thickness through application. Nitoflor FC150EH is supplied with two components and can be used after mixed evenly with certain ration of silica sand.

The product is available in a wide range of standard colours.

Technical support

Fosroc offers comprehensive technical support, including help at the design stage, application advice and on the site problem solving. Specifiers and contractors are encouraged to contact our trained staff for answers to their questions.

For further information please contact Fosroc.

Typical Properties

The following values are typical of those achieved in laboratory tests at 25℃. As such actual values obtained on site may show minor variations from those quoted.

Mixed density	: 1.5g/cm^3	
#Tack free time	:《6h	
#Hard dry time	:《48h	
#Bond strength		
Standard	:》3.0MPa(Concrete failure)	
Soaked	:》2.5MPa(Concrete failure)	
#Wear resistance(750g/500r)	: 0.011	
#Hardness Shore D	: 80	
#Compressive strength	: 80MPa@7d	
#Skid resistance	: 0.64	
	Little variance according to on site application	
#Impact resistance	: Class II	
(1000g,100cm high)	No crack ,no peel off	
#Water resistance (168h)		
	No bubble,peel off ,no color changed	
#Oil resistance (168h)		
	No bubble,peel off ,no color changed	
#Alkali resistance (168h)		
	No bubble,peel off ,no color changed	
#Acid resistance (168h)		
	No bubble,peel off ,no color changed	
Cure time at 25℃		
Initial cure (foot traffic)	:	24 hrs
	25℃	**35**℃
Pot life:	50 mins	30 mins

Data is obtained according to GB/T 22374-2008

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Chemical Properties

Nitoflor FC150EH has great chemical resistance to many industrial chemicals. For details, please contact Fosroc.

Note: It's very important to clean the spillage on the floor, as the concentration will be higher after evaporation.

Maintenance

Good health habit can prolong the life of the floor. The regular cleaning should be done with rotary scrubbing machine and water capacitive cleaner with maximum temperature of 50℃ .

The lining work should be programmed so that newly cleaned steel is coated as soon as possible before the formation of rust.

Application Instructions

Surface preparation

The long term durability of any resin floor system is determined by the adhesive bond achieved between the flooring material and the substrate. It is most important therefore that substrates are correctly prepared prior to application.

New concrete floors

These should normally have been placed for at least 28 days and have a moisture content of less than 5%. Floors should be sound and free from contamination such as oil and grease, mortar and paint splashes or curing compound residues. Excessive laitence can be removed by the use of mechanical methods. Dust and other debris should then be removed by vacuum cleaning.

Old concrete floors

A sound, clean substrate is essential to achieve maximum adhesion. As for old concrete floors dry removal of laitance by use of mechanical methods is preferable. Oil and grease penetration should be removed by the use of a proper chemical degreaser or by hot compressed air treatment.

Priming

Nitoprime 31*† or 35*† should be mixed in the proportions supplied,add the entire contents of the hardener can to the base can. When thoroughly mixed, preferably using a slow speed drill and paddle.The primer should be applied in a thin continuous film, using rollers or stiff brushes. Work the primer well into the surface of the concrete taking care to avoid ponding or over application.

The primer should be left to achieve a tack-free condition before applying the top coat. A second coat of primer may be required if the substrate is excessively porous.

Application Instructions

Mixing

Mix and stir the base and hardener together of Nitoflor FC150EH sufficiently for at least 2 mins. Then add suitable ratio silica sand according to the application requirement and mix for 2 mins at least until well-blended.

The use of a heavy-duty slow speed, flameproof or air driven drill fitted with a Mixing Paddle is desirable. Mix the two components in the quantities supplied taking care to ensure all containers are scraped clean. Do not add solvent thinners at any time.

Application

Floor coating or high build application

One flat coating of Nitoflor FC150EH should be applied using short wool roller, suitable for epoxy application to achieve a continuous coating. Ensure that loose hairs on the roller are removed before use. A minimum film thickness of 100 microns should be applied.

Self levelling application

Apply the mixed Nitoflor FC150EH with silica sand onto the primed substrate and spread evenly with trowel, then defoam with foam roller.

Screed application

The mixed Nitoflor FC150EH should be spread to uniform thickness on the primed surface using either a garden rake or the edge of a plastic trowel. The material should be tamped with a wooden float to ensure complete compaction and finally finished to a closed even texture using a steel trowel.

Use mechanical compaction to ensure the material strength when necessary.

Expansion joints

Expansion joints in the existing substrate must be retained and continued through the Nitoflor FC150EH topping. Fosroc have a range of joint sealants specifically designed for flooring, contact local Fosroc office for advice.

Cleaning

Tools and equipment should be cleaned with suitable solvent immediately after use.

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Application limitations

It's very important to have complete treatment and repair before Nitoflor FC150EH application. For special application suggestions, please contact Fosroc for advice.

Application should not be undertaken if the temperature is below 5℃, or is 5℃ and falling, nor when the prevailing relative humidity exceeds 90%.

Lay damp proof membrane to protect all surfaces need to apply Nitoflor FC150EH.

Nitoflor FC150EH should not be applied on to surfaces known to or likely to suffer from, rising dampness, potential osmosis problems or have a relative humidity greater than 75% as measured in accordance with BS 8203 Appendix A, or by a Vaisala concrete mortar moisture tester type HMI31.

Apply on the areas with obvious heat shock, please contact Fosroc for details.

Nitoflor FC150EH should not be applied to the following substrates:Asphalt, fragile concrete, P. V. C. tiles or sheet, susbstrate with obvious movement, such as: Steel pavement. For other sunstates, please contact Fosroc for details.

Nitoflor FC150EH is suitable for indoor environment , and outdoor environment is not suggested.The indoor and floor temperature should keep above 10℃ .

After exposed under sunshine, the color may fade or change which will not affect the performance of the coating.

Estimating

Supply

Component	Appearance/Color	Package
Base	Colored fluid	20kg
Hardener	Light yellow Liquid	4kg
Total		24kg/16L/Set

Nitoprime 31*

Component	Appearance/Color	Package1	Package2
Base	Coloured Liquid	3.5kg	4kg
Hardener	Light yellow Liquid	1.5kg	6kg
Total			
Package1			**5**kg//Set
Package2			**20**kg/Set

Nitoprime 35*

Component	Appearance/Color	Package
Base	White Liquid	8.9kg
Hardener	Brown yellow Liquid	4.1kg
Total		13kg/Set

Coverage

Floor coating application**:**	0.15kg/m^2@0.1mm
High build application**:**	0.8kg/m^2@0.5mm
Self levelling application:	1kg/m^2@1mm
(Recommended silica sand ratio:1:0.4, Recommended grain size: 0.05-0.2mm)	
Self levelling application:	2kg/m^2@2mm
(Recommended silica sand ratio:1:0.7 Recommended grain size: 0.1-0.3mm)	
Screed application:	2kg/m^2@5mm
(Recommended silica sand ratio:1:3.5, Recommended grain size: 0.2-1mm)	
Nitoprime 31* :	5m^2/ kg
Nitoprime 35* :	5m^2/ kg

Note: The coverage figures given are theoretical - due to wastage factors and the variety and nature of possible substrates, practical coverage figures will be reduced. Typically an additional 10% should be allowed for surface irregularities and wastage although this will vary with site conditions.

Attention: The silica sand ratio can not exceed 1:0.7 for self levelling applicaiton.

The silica sand ratio can not exceed 1:3.5 for screed application.

Note:The package may change according to the Commercial or Health and Safety requirements. For more details, please contact Fosroc for advice.

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Storage

Nitoflor FC150EH has a shelf life of 12 months when stored in unopened containers below 35℃.

Precautions

Health and safety

Nitoflor FC150EH and Nitoprime 31* or 35* should not come in contact with skin and eyes or be swallowed. Avoid prolonged inhalation of solvent vapours.

Some people are sensitive to epoxy resins, hardeners and solvents. Gloves, goggles and barrier creams, such as Kerodex Antisolvent or Rozalex Antipaint should therefore be used. Ensure adequate ventilation and if working in enclosed areas, suitable breathing apparatus must be used.

If mixed resin comes in contact with skin, it must be removed before it hardens with a resin removing cream such as Kerocleanse Standard Grade Skin Cleanser or Rozaklens Industrial Skin Cleanser, followed by washing with soap and water - do not use solvent.

Should accidental eye contamination occur with any of the above product, wash well with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately - do not induce vomiting.

For further information see relevant Material Safety Data Sheet.

Fire

Nitoflor FC150EH and Nitoprime 31* or 35* are non- flammable.

Do not expose to naked flames or other sources or ignition. No smoking. Containers should be tightly sealed when not in use. In the event of fire, extinguish with CO_2 or foam.

Additional Information

Fosroc manufactures a wide range of complementary products which include :

- waterproofing membranes & waterstops
- joint sealants & filler boards
- cementitious & epoxy grouts
- specialised flooring materials

Fosroc additionally offers a comprehensive package of products specifically designed for the repair and refurbishment of damaged concrete. Fosroc's "Systematic Approach" to concrete repair features the following :

- hand-placed repair mortars
- spray grade repair mortars
- fluid micro-concretes
- chemically resistant epoxy mortars
- anti-carbonation/anti-chloride protective coatings
- chemical and abrasion resistant coatings

For further information on any of the above, please consult your local Fosroc office.

*** Denotes the trademark of Fosroc International Limited**

† See separate data sheet

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, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation, specification or 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 or information given by it.