Nitoflor TF 30

constructive solutions

3-6mm chemical and abrasion resistant
resin rich epoxy floor screed.

Uses

Nitoflor TF30 provides and extremely high strength floor topping with exceptional resistance to the surface mechanical wear and attack from chemical spillage, is impervious and, at the same time, has a safe non-slip finish for personnel and vehicular traffic.

Ideally suited for heavy engineering plants, chemical handling and process areas, steelworks, dairies, breweries, oil refineries, paint workshops, battery rooms, plating factories, sugar and food industries.

Also widely used for areas of lighter duty where above average durability and low maintenance costs are required.

Advantages

- Durable - Exceptional resistance to abrasion and to a wide range of chemicals
- Non-slip - Good gripping surface to both vehicular and pedestrian traffic.
- Easily laid - Designed for easy laying to a fair finish
- Texture - Close textured surface - non need for overcoating
- Proven - Successful use proven in a wide performance variety of aggressive locations.

Description

Nitoflor TF30 is a three part solvent-free combination of epoxy resin, modified amine hardeners filled with specially graded and selected high crushing strength, chemically inert aggregates.

It is laid by trowel as durable chemical resistant screed at approximately 3-6 mm thickness. This nominal thickness provides an impervious topping which is highly chemical resistant by the very careful choice of amine curing agent and graded aggregate. The system includes Nitoprime 25 a two pack epoxy resin primer and Nitoflor TF30 which are both supplied in pre-weighed units ready for on site mixing and application. The finished, cured floor has a slightly granular texture of uniform self colour

It is laid by trowel at approximately 3-6mm thick depending upon the requirement. It is highly chemical and abrasion resistant

Before application on a steel substrate, shot blasting must first be done to SA 2 ½ finish and then primed with Nitoprime 28.

Technical Support

Fosroc provides a technical advisory service supported by a team of specialists in the field.

Properties

Curing characteristics at 30 deg C

Nitoflor TF30

Pot life	30 min
Intial hardness	16 hrs
Full cure	7 days
Mixed density	2.0g./cc
Mechanical characteristics	
Compressive strength (BS6319 Part-2)	75 N/mm^2
Flexural strength (BS6319 Part-3)	26 N/mm^2
Tensile strength (BS6319 Part-7)	13.5 N/mm^2
Abrasion resistance	3.0 mg/cycle
Bond strength to concrete	3.0 N/mm^2
Primer for steel substrates	
Nitoprime 28	
Pot life	1 hr at 30 deg C
Maximum overlay time	1 hr at 30 deg C
Primer for concrete substrates	
Nitoprime 25	
Pot life	30 min @ 30 deg C
Maximum overlay time	30 min @ 30 deg C

Chemical resistance

Fully cured blocks of Nitoflor TF30 have been tested in a wide range of aggressive chemicals commonly found in industrial environments. Tests were performed by constant immersion at 30 deg C.

Hydrochloride Acid 10%	Excellent
Sulphuric acid 10%	Excellent
Phosphoric acid 30%	Excellent
Nitric acid 10%	Good
Lactic 10%	Excellent
Citric 10%	Excellent
Alkalis	
Sodium Hydroxide 30%	Excellent
Ammonia	Excellent
Solvents	
Butanol	Good
White spirit	Excellent
Oil/Grease/Petrol	Excellent
Xylene	Good
Acetone	Not resistant
Skydrol	Good
Aqueous Solutions	
Conc.Bleach	Excellent
Sat.Urea	Excellent
Sat Sugar	Excellent

Those materials marked 'Good' are suitable for areas for occasional spillage where good house keeping is in force.

All the above properties have been determined by laboratory controlled testes and are typical of those expected in practice.

Application Instructions

Surface Preparation

It is essential that Nitoflor TF 30 is applied to sound, clean and dry surfaces in order that maximum bond strength is achieved between the substrate and the flooring system.

New concrete floors

Should be at least 28 days old (moisture content should be less than 5%). Laitence deposits on new concrete floors are best removed by light grit-blasting, mechanical scabbling or grinding. On smaller areas through acid etching using Fosroc Acid Etch may be considered. After etching the floor should be thoroughly washed with clean water and then allowed to dry.

Old concrete floors

Again mechanical cleaning methods are strongly recommended on old concrete floors particularly where heavy contaminations by oil and grease has occurred or existing oatings are present. This may well have been absorbed several mm. into the concrete. To ensure adhesion, all contamination should be removed.

All dust and debris should be removed prior to laying Nitoflor TF30.

Steel Surfaces

Should be degreased and sand blasted immediately prior to application.

Priming

All surfaces to be treated with Nitoflor TF30 should be primed with Nitoprime 25, and all steel surfaces should be primed with Nitoprime 28 designed for maximum adhesion to the substrates. Add the entire contents of the hardener tin to the base and mix thoroughly. Once mixed, immediately apply the primer in a thin continuous film to the clean prepared surfaces. Work the primer into the surface using stiff brushes, avoid over application and puddling. On porous floors Nitoprime 25 will be absorbed very quickly leaving characteristic light coloured dry patches. It is recommended that a second priming coat be applied.

Allow the solvent in the Nitoprime 25 / Nitoprime 28 to evaporate, at which stage the primer would become tacky before applying Nitoflor TF30. This time is dependent on climatic conditions. See 'Properties' for maximum overlay times.

Mixing

It is important that Nitoflor TF30 is mixed correctly.

A suitable forced action mixer such as a paddle fitted into a heavy duty, slow speed, electric hand drill or a similar equipment, is recommended for mixing.

The entire contents of hardener tin should be poured into the base container and mixed thoroughly until homogeneous.

It is recommended that the aggregates in the bag be blended well manually before adding to the mixed resin and hardener. Add the aggregate slowly to the mixed resin and hardener,

continue mechanical mixing for a further 2-3 minutes, until all the components are thoroughly blended. Once mixed, the materials must be used within the specified pot life (see under 'Properties'). After this time, unused materials would have stiffened and should be discarded.

Application

The mixed Nitoflor TF30 should be spread to uniform thickness on the primed surface using a steel 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. Screeding rods are useful to maintain a minimum compacted thickness during application

Expansion joints

Expansion joints in the existing substrate should be continued through the Nitoflor TF30 topping.

Cleaning

All tools and equipment should be cleaned immediately after use with Nitoflor Sol or xylene.

Estimating

Packing and coverage

	Pack size	Approximate coverage rate
Nitoprime 25	1 & 4 L	5.5 - 6.5 m^2/L
Nitoflor TF30	12L	4.0m^2/pack 3mm thickness

The above coverage rates are given for guidance only as actual quantities used will vary with nature of su stratate and cionditions on site.

Storage

Nitoprime 25, Nitoprime 28 and Nitoflor TF30 have a shelf life of 12 months when stored in a dry place below 35^{0}C.

Precautions

Health & Safety

All Some people are sensitive to epoxy resins and solvents. So, gloves, barrier creams, protective clothing and eye goggles should be worn when handling these products. If accidental contact occurs, it should be removed before it hardens with resin removal cream followed by washing with soap and water. Do not use solvent. Should eye contamination occur then wash with plenty of clean water and seek immediate medical attention. Ensure good ventilation and do not smoke during use.

Fire

Nitoprime 25, Nitoprime 28 and Nitoflor Sol are flammable. Ensure adequate ventilation. Do not smoke or use near a naked flame.Flash points

Flash Point

Nitoprime 28	30^{0}C
Nitoprime 25	25^{0}C
Nitoflor Sol	33^{0}C

Additional Information

The Fosroc range of associated products includes admixtures, curing compounds, release agents, grouts and anchors, repair & protective coatings, sealants and waterproofing.

Seperate datasheets are available on these products.

Important note :
Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, 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.

Fosroc Chemicals (India) Pvt. Ltd.
Head Office
Embassy Point, No. 150,
2nd Floor, Infantry Road,
Bangalore 560 001,
Karnataka

telephone	fax	e-mail
+91 80-42521900	+91 80-22281510	enquiryindia@fosroc.com

Regional Offices

Chennai
Hills Centre,Old No 5,
New No 9, 3rd Cross Street,
Jeth Nagar, Raja Annamalaipuram,
Chennai 600 028.
Ph: +91 44 61304500

Mumbai
MBC Park, 12th floor, Office No.12B,
'D' Block, Near G Corp/Hyper City
Kasarwadawali, Ghodbunder Road,
Thane (West) 400 615
Ph: +91 22 6229 6800
Fax: 022 62296809

Noida
Unit No. 601, Highway Tower-II
A-13/2, 6th Floor, Sector– 62
Gautam Buddha Nagar,
Noida 201 309, Uttar Pradesh
Ph: +91 120 6121900
Fax: 0120-4270622

Kolkata
304, Jodhpur Park
Kolkata 700 068
Ph:+91 33-65343188
Fax: 033-2499-0280

www.fosroc.com