

constructive solutions

Heavy duty, 5 mm thick, epoxy resin floor screed

#### Uses

Nitoflor TF5000 fg has been designed for use as a 5 mm thick floor screed in environments where high resistance to mechanical and chemical attack is required. Typical areas of use include engineering plants, chemical plants, taffic aisles and food processing areas. It may be sealed with Nitoflor FC130 or Ntoflor FC140 in areas of significant risk from chemical attack (see separate data sheets).

## Advantages

- Durable provides long term protection in heavy industrial environments
- Improves efficiency seamless surface aids traffic flow and cleaning
- Good resistance to a wide range of industrial chemicals
- Tough resists high impact and point loading
- Non-taint can be applied in close proximity to exposed food

## Standards compliance

Nitoflor TF5000 fg Nttoprime 31 have been evaluated by the Leatherhead Food Research Association In the United Kingdom for effect on tainting of foodstuffs during application. These tests confirmed a minimal risk of tainting in both the wet and dry state. Further information is contained in Food Research Association report number P3300.

## Description

Nitoflor TF5000 fg consists of graded sands bound together with a pigmented epoxy resin binder. It is supplied as a f our-component system, pre-weighed for on-site mixing.

When laid, it produces a matt, slightly textured, anti-slip surface.

The product is available in a range of standard colours.



## Nitofloor TF5000FG

## **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 TF5000 FG is designed for application at a nominal thickness of 5 mm.

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.

## **Properties**

The values given below are average figures achieved in laboratory tests at 20°C. Actual values obtained on site may show minor variations from those quoted.

### Physical properties

| Compressive strength (BS 6319): | 65 N/mm <sup>2</sup> |
|---------------------------------|----------------------|
| Flexural strength (BS 6319):    | 25 N/mm <sup>2</sup> |
| Cure time -                     |                      |
| foot traffic:                   | 24 hours             |
| vehicular traffic:              | 38 hours             |
| chemical:                       | 7 days               |

#### Chemical properties

Nitoflor TF5000 FG sealed with Nitoflor FC140 has excellent resistance at ambient temperature to a wide range of industrial chemicals. Specific data is available on request.

Note that it is especially important that spillage is cleared up since very much higher concentrations of chemicals may occur on evaporation.

### Maintenance

The service life of a floor can be considerably extended by good housekeeping. Regular cleaning of Nitoflor TF5000 FG may be carried out using a rotary scrubbing machine with a water miscible cleaning agent or by hot water washing at temperatures up to 60°C.

#### Specification clauses

## Heavy duty epoxy floor screed

The designated floor areas shall be surfaced with Nitoflor TF5000 FG a 5 mm thick epoxy resin floor screed. The screed shall achieve a compressive strength of 65 N/mm² and a flexural strength of 25 N/mm² at 7 days. It shall be capable of accepting foot traffic at 24 hours and vehicular traffic at 48 hours.

## **Application instructions**

Nitoflor TF5000 FG should be installed by specialist applicators who must follow the Product Application Guide. Fosroc works with a network of such contractors who have been fully trained in the correct installation procedures. The following steps are involved in the application which would normally take place over a 3 to 5 day period.

- Thoroughly prepare the floor surface. Correct surface preparation helps to achieve the necessary adhesive bond between the substrate and the new floor.
- All existing expansion or movement joints should be followed through the new floor surface. Joints should be cleaned and prepared.
- Apply Nitoprime 25 or Nitoprime 31 and allow to become 'tacky'. Nitoprime 25 should not be used in food processing areas.
- Apply the Nitoflor TF5000 FG screed. The material is spread over the primer and fully compacted to archieve a dense 5 mm seamless screed. Allow to harden fully
- If required, apply two coats of Nitoflor FC140 of FC130 to seal the surface (refer to separate data sheet).
- Install the appropriate Fosroc joint sealant. This will depend on the anticipated movement accommodation factor and the end use of the new floor. For further advice, consult the local Fosroc office.

Installation time will vary with site conditions, the size of the area involved and the system chosen.

#### Cleaning

Nitoprime 25, Nitoprime 31 and Nitoflor TF5000 FG should be removed from tools and equipment with Fosroc Solvent 102 immediately after use. Hardened material can only be removed mechanically

# Nitofloor TF5000FG

#### Limitations

Nitoflor TF5000 FG should not be applied on to surfaces known to suffer or are likely to suffer from rising damp conditions or having a relative humidity of greater than 80% as measured in accordance with BS 8203 Appendix A or by a Vaisala thermohygrometer type HMI 31.

In areas where significant thermal shock is likely to occur, please consult the local Fosroc office.

Nitoflor TF5000 FG should not be applied to asphalt, unmodified sand/cement screeds, PVC tiles or sheet. For information on the suitability of other substrates, consult the local Fosroc office.

Nitoflor TF5000 FG should not be installed at temperatures below 10°C.

### **Estimating**

## Supply

Nitoflor TF5000 FG is supplied In packs containing prewelghed components -

binder:

total:

6.9 kg packs

aggregate:

50 kg (2 x 25 kg) sacks

colour pack:

0.5 kg packs 57.4 kg packs

Nitoprime 25:

0.1

5 kg packs

Nitoprime 31:

5 kg packs

Fosroc Solvent 102:

5 litre drums

## Coverage

| Nitoflor TF5000 FG: | 5.2 m <sup>2</sup> /pack (85 mm thickness |  |
|---------------------|---|--|
| Nitoprime 25:       | 5 m²/kg                                   |  |
| Nitoprime 31:       | 5 m²/kg                                   |  |

The coverage figures given are theoretical - due to wastage factors and the variety and nature of possible substrate, 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.

## 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 are 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 packs.

#### Storage conditions

Store in dry conditions between 5°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 TF5000 FG. Nitoprime 25, 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 skin. rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately - do not induce vomiting.

## Fire

Nitoflor TF5000 FG and Nitoprime 31 are non-flammable.

Nitoprime 25 and Fosroc Solvent 102 are flammable. Keep away from sources of ignition. No smoking. In the event of fire, extinguish with CO<sub>2</sub> or foam. Do not use a water jet.

## Flash points

| Nitoprime 25:       | 59°C |  |
|---------------------|------|--|
| Fosroc Solvent 102: | 33°C |  |



## Nitofloor TF5000FG

## 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. Among them, these products are 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, walerstops, 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.



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#### 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.

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