

# Nitoflor ET Slurry

Formerly Fosroc® Cicol ET Slurry



constructive solutions

**Solvent free coal tar epoxy resin product with mineral fillers**

## Uses

Nitoflor ET Slurry is used for making a flexible waterproof, lightweight anti-skid wearing course on bridge decks, platforms, loading jetties, airfield aprons, industrial floors and other high traffic areas.

The product can also be applied as a waterproofing membrane. e.g. under an asphalt layer on bridges and flyovers.

## Advantages

- Lightweight - important in design considerations
- Hard-wearing
- Flexible - excellent flexural and tensile strength
- Non-slip even when wet
- Chemical resistance
- Can be applied to steel
- Waterproof - provides a lightweight, chemically corrosion resistant and water impermeable wearing course.

## Description

Nitoflor ET Slurry is a solvent free three component product based on epoxy resin and special coal tar with mineral fillers.

Nitoflor ET Slurry is black but the final colour of the system will depend on the aggregate used as the surface dressing.

## Technical support

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

For further information please contact Fosroc.

## Design criteria

The thickness of Nitoflor ET Slurry resin is designed to suit the traffic conditions. - typically:

**Light traffic:** 3.0 - 3.5 mm

**Heavy traffic:** 4.0 - 4.5 mm

## Typical Properties

**Mixing ratio (A:B:filler):** 15:15:70

**Specific gravity (mixed):** Approx. 1.6

**Volume solids (mixed):** 100%



Nitoflor ET Slurry Application at a carpark in Hong Kong

**Tensile strength:** 10 N/mm<sup>2</sup>  
**(BS6319 - 28 days)**

**Flexural strength:** 34 N/mm<sup>2</sup> at 25°C  
**(BS 6319 - 28 days)**

**Shore-D hardness:** 70

**Service temperature:** 80°C maximum

**Pot life at 20°C:** 30 minutes

**Initial cure:** 12 hours minimum  
**(light foot traffic)** at 20°C

**Full traffic load:** 16 hours minimum  
at 20°C

**Chemical resistance:** The cured layer of Nitoflor ET Slurry is resistant to petrol, diesel fuel, jet fuel, lubricating fuel, cleaning compositions, a number of alliphatic hydrocarbons, diluted mineral acids and alkalis, de-icing salts.

## Nitoflor Aggregate

**Mohn hardness:** 9 (Diamond is 10)

**Anti-skid resistance** >90

**value on wet surface:**

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## Application instructions

### Preparation

#### Steel

For optimum adhesion, Nitoflor ET Slurry is applied without the need of a primer. The steel shall be prepared by abrasive blast cleaning to a minimum standard of Sa 2 $\frac{1}{2}$ . An angular amplitude of at least 100 microns is required. Note that the slurry must be applied immediately after blasting the steel.

#### Concrete

The concrete shall be clean, dry and free of laitence. Mechanical cleaning or abrasive blasting is recommended. The prepared concrete should be primed with one even coat of Nitoprime 31 at a rate of 0.3 kg/m<sup>2</sup>. The Nitoflor ET Slurry is applied 'wet on wet'.

#### Timber

The surface should be clean, dry and uncontaminated. Hardwoods may require abrasion in order to obtain a good mechanical key. Nitoflor ET Slurry is applied without the need of a primer.

#### Aluminium

Surfaces should be either chemically cleaned or mechanically prepared to obtain a surface profile and mechanical key. Nitoflor ET Slurry must be applied immediately to the dry, keyed, uncontaminated surface.

#### Asphalt

Nitoflor ET Slurry can be applied onto asphalt substrates providing they are clean, sound and dry. It is recommended that the asphalt should be at least 3 months or all volatile organic materials in the asphalt have been evaporated.

Asphalt should be lightly grit blasted to remove any weakly

bonded or contaminated material to provide the desired surface. No primer is required on asphalt.

### Mixing

Nitoflor ET Slurry is supplied in pre-weighed units. Thorough mixing is essential, using a forced action mixer of suitable capacity. The following procedures should be adopted.

Mix the resin base and the hardener together until thoroughly blended. Add the filler slowly and continuously while still mixing, until a homogeneous consistency is achieved. The mixing cycle will take approximately 5 - 7 minutes.

At this stage Nitoflor ET Slurry will be ready to use. Note that under no circumstances can either thinners or solvents be added.

### Application

The mixed Nitoflor ET Slurry must be applied within the pot life of the material. It is recommended that 100 mm wide self adhesive tape is applied at the edges of the areas to be treated. Pour the slurry onto the prepared surface. Apply in lanes of approximately 2 metres in width. The slurry is spread evenly over the area with a steel trowel or squeegee. Care must be taken to ensure that where the material is applied against existing Nitoflor ET Slurry, total contact is achieved at the correct thickness. It is essential that a wet film thickness gauge is used to ensure that an even thickness is achieved.

The selected aggregate dressing must be applied immediately after application of the slurry. The slurry has to be dressed until obliterated and no slurry is visible. The dressing must be applied by a method which results in it falling vertically down into the slurry. If hand thrown, there will be ridges created which cannot be remedied latter. Before the slurry cures, remove the self adhesive boarder tape.

### Curing

Nitoflor ET Slurry should be allowed to cure for at least 16 hours @ 20°C before any heavy to vehicular is allowed on the surface.

After curing the excess aggregate has to be removed. If the



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excess aggregate is dry, clean and uncontaminated it may be used in future applications of the system.

## Limitations

Nitoflor ET slurry should not be applied at temperatures below 5°C or above 35°C, or onto substrates with a temperature lower than 3°C over the dewpoint.

## Estimating

### Coverage

**Nitoflor ET Slurry:** Approx 1.6 kg/m<sup>2</sup> per mm thickness

### Nitoflor aggregate:

0.4 - 1 mm            8 kg/m<sup>2</sup> (nett)

### Nitoflor aggregate:

1 - 3 mm            8 kg/m<sup>2</sup> (nett)

### Nitoflor aggregate:

3 - 5 mm            8 kg/m<sup>2</sup> (nett)

**Nitoprime 31:**        0.3 kg/m<sup>2</sup>

**Note:** In accordance with Commercial or Health & Safety requirements packaging detail may alter. Please contact your local Fosroc office for detail.

## Storage

### Shelf life

All products have a shelf life of 12 months if kept in a dry store below 35°C in the original, unopened containers.

## Precautions

### Health and safety

Nitoflor ET Slurry components should not come into contact with skin and eyes or be swallowed.

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.

If mixed resin comes into 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 products, wash well with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately - do not induce vomiting.

## Flash points

**Nitoflor ET Slurry:** > 50°C

**Nitoprime 31 Base:** 124°C

**Nitoprime 31 Hardener:** 128°C

For further information see relevant Material Safety Data Sheet.

## Additional information

Fosroc manufactures a wide range of products specifically designed for transportation structures and flooring applications. A wide range of complementary products are also available. This includes joint sealants, waterproofing membranes, waterstops, grouting, anchoring, concrete repair and refurbishment and flooring materials.

For further information please contact your 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 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.

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