



Nitoflor EU5

High strength self-smoothing epoxy underlay

Uses

Provides an economical method of levelling floors prior to laying epoxy screed, toppings or coatings such as Nitoflor FC140*†, Nitoflor FC150*† and Nitoflor SL2000*†.

Advantages

- Cost effective
- High strength
- Quick and easy to lay
- Seamless
- Durable

Description

Nitoflor EU5 consists of special resins and graded aggregates formulated to withstand chemical attack and impact shock. The product is supplied as a 3 component system comprising resin base, resin hardener and fillers. When correctly laid Nitoflor EU5 will provide a surface ready to receive applications of other Fosroc flooring systems.

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 EU5 is designed for application in the range of 1.5-5 mm. Greater thicknesses can be achieved by the use of other products in the Nitoflor EU range - consult the local Fosroc office for more details.

Substrates should be surface dry and not suffer, or be likely to suffer, from rising dampness. If necessary, suitable damp-proof membranes should be installed to prevent this. Substrates should not have a moisture content greater than 5% at any time during the installation.

Specification Clause

The epoxy underlay shall achieve a minimum compressive strength of 60 N/mm². Flexural strength of 20 N/mm² and Tensile strength of 10N/mm² @ 7 days. The underlay shall have nil water absorption when tested as per BS1881 Part 122-1983. The adhesion strength of the epoxy underlay shall be greater than the tensile strength of concrete.

Properties

The values given below are typical figures achieved in laboratory tests. Actual values obtained on-site may show minor variations from those quoted.

Physical properties @ 35°C

Specific gravity	:	1.850 g/cc
Pot life	:	70 minutes
Mixed density	:	1.80 - 1.85
Compressive strength (BS 6319 part 2, 1983)	:	70 N/mm² @ 7 days
Tensile strength (BS 6319 part 7, 1983)	:	12 N/mm² @ 7 days
Flexural strength (BS 6319 part 3, 1983)	:	25 N/mm² @ 7 days
Water absorption (BS 1881 Part 122, 1983)	:	Nil

Curing characteristics @ 35°C

Initial hardness	:	16 hours
Full cure	:	7 days
Adhesion	:	Greater than the tensile strength of concrete

Instructions for use

Surface Preparation

It is essential that Nitoflor EU5 is applied to sound, clean and dry surfaces in order that maximum bond strength is achieved between the substrate and the flooring system. All dust and debris should be removed prior to application of the product.

New concrete floors

Should be at least 21 days old with a maximum moisture content not exceeding 5%. Laitance deposits on new concrete floors are best removed by light grit blasting, mechanical scrubbing or grinding.

Old concrete floors

Mechanical cleaning methods are strongly recommended on old concrete floors particularly where heavy contamination by oil and grease has occurred or existing coatings are present. These may well have been absorbed several millimetres into the concrete. To ensure adhesion, all contamination should be removed by the use of a proprietary chemical degreaser.

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Priming

Priming is not normally required provided the substrate is sound, untreated, dry and good quality concrete. If any doubts exists of the quality of the concrete, contact the local Fosroc office for advice.

For highly absorbant concrete substrate, Nitoprime 25 shall be used to seal the pores.

Mixing

It is important that Nitoflor EU5 is mixed correctly.

Suitable mixing equipment must be used, such equipment being defined as either a heavy duty variable speed drill and Mixing Paddle, or forced action mixers such as Creteangle or similar.

Empty the entire contents of the resin hardener component into the can containing the resin base component and mix until homogeneous. Place the mixed resin components into the mixing vessel and while mixing slowly add the fillers. Mixing of all components shall continue for a further 3-5 minutes, until such time that a homogenous mix is achieved.

Application

The mixed Nitoflor EU5 should be spread to uniform thickness on the prepared surface using either a squeegee or a notched trowel. The subsequent use of a spiked roller, eliminates air entrainment.

The material must be applied within the pot life after mixing (see "Properties"). After this time unused material should be discarded.

Overcoating

Overcoating of the Nitoflor EU5 with any other Fosroc floor system should not start until the Nitoflor EU5 is at least 18 hours old, but not later than 48 hours.

Expansion joints

Expansion joints in the existing substrate should be continued through the Nitoflor EU5 and any subsequent topping, and filled to the required level with a suitable sealant - contact the local Fosroc office for further details

Cleaning

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

Estimating

Supply

Nitoflor EU5	: 15 litre packs
Nitoflor Sol	: 5 & 20 litre packs
Nitoprime 25	: 1 & 4 litre packs

Coverage

Nitoflor EU5	: 7.5 m ² /pack @ 2mm thickness
Nitoprime 25	: 5.5 - 6.5 m ² /litre

Precautions

Health and safety

Nitoflor EU5 and Nitoflor Sol 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 a barrier cream should be used. Ensure adequate ventilation and if working in enclosed areas use suitable breathing apparatus.

If mixed resin comes into contact with the skin, it must be removed before it hardens with a resin removing cream followed by washing with soap and water. **Do not** use solvent.

Nitoflor Sol should be washed from the skin immediately with soap and water.

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.**

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Fire

Nitoflor Sol, is flammable. Do not expose to naked flames or other sources of ignition. **No smoking during use.** Containers should be tightly sealed when not in use. In the event of a fire, extinguish with a CO₂ or foam type extinguisher.

Flash points

Nitoflor Sol : 33 °C

Also refer to the Material Safety Data Sheet.

Storage

Nitoflor EU5 has a shelf life of 12 months when stored in a dry place below 35°C in its original, unopened packs.

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.

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Important note :

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