

High Performance, solvent based epoxy resin coating

Uses

To provide a durable, easily cleaned, high build floor finish in areas where a hard wearing, high resistance to chemical attack is required. It is particularly suitable in areas where a thicker coating is required, such as:

- Production assembly areas
- Workshops
- Dairies
- Soft drinks production and bottling plants
- Kitchens
- Showrooms

Advantages

- Very hard wearing - durable, low maintenance costs.
- High resistance of a wide range of industrial chemicals.
- Hygienic - impervious finish provides easily cleaned surface.
- Attractive - available in a range of colours to improve the working environment.

Description

Nitocote EP175 is a three-component high solids, epoxy resin coating system supplied in pre-weighed packs ready for on-site mixing and use (including colour part).

The cured film forms a hard, durable, coating with excellent adhesion to clean concrete, sand/cement and granolithic screeds, and certain metal surfaces. It cures to semi-gloss impervious finish which is easily cleaned.

Properties

The values given below are average figures achieved in laboratory tests at 20°C and 35°C. Actual values obtained on site may show variations from those quoted.

	@20°C	@35°C
Pot Life ¹	: 3 hrs	1.5hrs
Tack free time	: 6-8 hrs	3-4 hrs
Time between coats	: 12-24 hrs	6-12 hrs
Initial hardness	: 30 hrs	16 hrs
Full cure	: 10 days	7 days

Wet film thickness : 175 microns
(per single coat)

Dry film thickness
per coat : 130 microns

Solids content (By vol) : 75%

Appearance : Glossy/Semigloss

Colour : Clear & wide range of colours

- Note
- 1 After the pot life has expired, the material, although not hardened, increases in viscosity and the characteristics of the product change. Excess material should be discarded after this point.
 - 2 Final applied thickness of the material can be varied according to service conditions.

Chemical properties

Nitocote EP175 is resistant to a wide range of chemicals.

Citric Acid (10%) : Resistant

Hydrochloric Acid (10%) : Resistant

Lactic Acid (10%) : Resistant

Sulphuric Acid (10%) : Resistant

Good housekeeping is essential in areas where chemical spillage is likely to occur. It is especially important that such spillage should not be allowed to dry since much higher concentrations of chemicals will then result.

Specification

Where shown on the contract documents, the floor coating shall be Nitocote EP175, a three-component, high build, solvent based epoxy suitable for application by brush or lambswool roller. The coating shall be applied in two coats to achieve a total dry film thickness of 260 microns.

Instructions for use

Preparation

It is essential that Nitocote EP175 is applied to sound, clean and dry substrates in order to achieve maximum adhesion.

Because Nitocote EP175 is a relatively thin coating, the substrate must be fine textured. Any surface irregularities may show through causing excessive wear on high spots and changing the perceived colour of coating.

Nitocote® EP175

New concrete floors/walls

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

Old concrete walls

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

Any damaged areas or surface irregularities should be repaired using Nitomortar 30 or Nitoflor EU5.

Steel substrates

Steel substrates should be grit blasted to surface quality SA 2½ (BS 4232: Second Quality) and primed with a single coat of Nitoprime 25.

Epoxy screeds

Nitocote EP175 can be applied to Fosroc epoxy resin screeds. High spots or trowel marks should be rubbed down and dust and other debris removed by vacuum cleaning.

Mixing

The base and hardener components of Nitocote EP175 should be thoroughly stirred before the two are mixed together. The entire contents of the hardener container should be poured into the base container and the two materials mixed thoroughly, then add the colour pot and mix for at least 3 minutes. The use of a heavy-duty slow speed, flameproof or air driven drill fitted with a Mixing Paddle is desirable. Mix these components in the quantities supplied taking care to ensure all containers are scraped clean. Do not add solvent thinners at any time.

Application

The mixed Nitocote EP175 should be applied to the prepared surface using a brush or lambswool roller. Ensure that the area is completely coated and that 'ponding' of the material does not occur.

The second coat may be applied as soon as the first coat has initially dried (typically 12 to 18 hours). The time will be dependent on the type of surface and the ambient conditions.

Maintenance

The service life of the substrate can be considerably extended by good housekeeping practices. Regular cleaning of Nitocote EP175 may be carried out using a rotary scrubbing machine with a water miscible cleaning agent or by hot water washing at temperatures up to 50°C.

Cleaning

Nitocote EP175 and Nitoprime 25 should be removed from tools and equipment with Nitoflor Sol immediately after use. Hardened material can only be removed mechanically.

Limitations

- Nitocote EP175 should not be applied onto surfaces known to or are likely to suffer from rising dampness or have a relative humidity greater than 75% as measured in accordance with BS 8203 Appendix A or by Protimeter Thermohygrometer.
- Fosroc does not recommend acid etching as a method of floor preparation. If used, the method should be approved by the project consultant.
- Nitocote EP175 should not be applied to asphalt floors or PVC tiles or sheets.
- In common with all epoxy materials some slight shade changes may be experienced over the long term when placed in adverse exposure conditions. Any such change in shade is not regarded as being detrimental to performance.

Technical support

Fosroc offers a comprehensive technical support service to specifiers, end users and contractors.

Estimating

Supply

Nitocote EP175	:	4.5 litre packs	(Including colour pack)
Nitoflor Sol	:	5 litre pack	
Nitoprime 25	:	1 and 4 litre packs	

Coverage

Nitocote EP175	:	5.5 m ² /litre @ 175 microns WFT/coat (2 coats application recommended)
Nitoprime 25	:	5.5 - 6.5 m ² /litre

Note: Coverage figures given are theoretical - due to wastage factors and the variety and nature of substrates, practical coverage figures may be reduced, this will vary with site and application conditions.



Nitocote® EP175

Storage

Shelf life

Nitocote EP175 and Nitoflor Sol have a shelf life of 12 months if kept in a dry store between 5°C and 30°C in the original, unopened packs.

Storage conditions

The product should be stored in accordance with local regulations.

Precautions

Health and safety

Nitocote EP175, Nitoprime 25 and Nitoflor Sol should not come into contact with 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

Nitocote EP175 and Nitoflor Sol are flammable. Keep away from sources of ignition. No smoking. In the event of fire, extinguish with Carbon Dioxide or foam. Do not use a water jet.

Flash points

Nitocote EP175	:	23°C
Nitoflor Sol	:	33°C

Cleaning and disposal

Spillages of component products should be absorbed onto 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 authority regulations'.

For further information, refer to the Product Material Safety data sheet.

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 - as below.

Nitocote® EP175

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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