



Nitocote EP410

Epoxy resin tank and surface lining material

Uses

Nitocote EP410 is a hygienic and highly chemically resistant coating for brick and concrete walls, concrete and metal tanks, sluices and ducts. Suitable for applications in process plants and sewage works.

Advantages

- Excellent chemical resistance
- Excellent adhesion
- Equally effective on concrete or metal substrates
- Hygienic smooth finish
- Tough abrasion resistant film
- High build for maximum protection
- Long maintenance-free life.

Description

Nitocote EP410 is a two-component, solvent free, high build epoxy formulated to provide a thixotropic coating suitable and application to vertical surfaces. The film is opaque and pigments are added to ensure that complete mixing is achieved, indicated by a uniform green colour.

Certain exposure conditions may cause some discolouration. This does not affect product performance.

Properties

Specific gravity: 1.45.

Volume solids: 100%

Recommended thickness per coat:

Dry film thickness (dft) 250 µm.

Wet film thickness 250 µm.

Theoretical coverage: 4m²/litre (2.75 m²/kg) for a dft of 250 µm.

Practical coverage: Theoretical coverages are quoted for guidance. Practical coverages may be lower, depending on substrate and application method.

Number of coats: 1 (2 with glass fibre reinforcement where special circumstances dictate).

Pot life:	at 20°C	at 35°C
	1 ½ hours	35 mins

Drying times:

Touch dry	12 hours	6 hours
Fully cured	7 days	6 days
Recoatable	12-30 hours	6-18 hours

Application temperature: Minimum 7°C

Chemical resistance: The fully cured coat is resistant to:

Ammonium hydroxide 30%	Slight attack*
Caustic soda 50%	No attack
Citric acid 50%	No attack
Detergents	No attack
Fatty acids (higher)	Slight attack*
Hydrochloric acid 30%	No attack
Lactic acid 10%	No attack
Nitric acid 10%	No attack
Oil, mineral	No attack
Petrol	No attack
Sodium hypochlorite 10%	Slight attack*
Sulphuric acid 20%	No attack
Water	No attack

* indicates slight attack under continuous immersion, but Nitocote EP410 will withstand lengthy exposure to chemical splash, spray and fumes. "Attack" refers to any etching or swelling observed but ignores discolouration.

For details in respect of other chemicals, or in conditions where temperatures exceed 35°C, FOSROC technical department should be consulted.

Application Instructions

Preparation

All surfaces should be clean, dry and free from dust. Treat oil or grease contamination with FOSROC CHEMICAL DEGREASER followed by water or steam cleaning.

Concrete surfaces: Should be grit blasted or wire brushed

Steel surfaces: Should be cleaned back to bright steel, sand or grit blast to SA2½. Small areas can be cleaned with a wire brush.

Priming

Concrete surfaces: All prepared concrete surfaces should be primed using Nitoprime 25. This is a two pack epoxy resin primer supplied in pre-weighed quantities ready for mixing. Complete packs should be mixed and brushed in a thin continuous film over the concrete surface. The primer should be allowed to cure overnight, but not more than 24 hours at 20°C, 16 hours at 25°C, before applying the Nitocote EP410. The usable life after mixing is 60-80 minutes at 20°C, 30-40 minutes at 35°C.

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Metal surfaces: All metal surfaces should be primed immediately after preparation using Nitoprime EP203 (see separate data sheet).

Mixing

The contents of the base can should be stirred thoroughly to disperse any settlement.

The entire contents of the hardener can should be poured into the base container and the two materials mixed thoroughly until a uniform consistency and colour is obtained.

It is recommended that mechanical mixing is employed, using a stirrer on a heavy duty slow speed electric drill.

Application

Apply Nitocote EP410 to the primer surface immediately after mixing. Use a nylon brush and finally smooth out using a steel trowel. A continuous coating of uniform thickness should be obtained.

Use of glass fibre reinforcement

Nitocote EP410 may be used in conjunction with glass fibre fabric to increase coating thickness or where it is necessary to bridge fine cracks in the substrate. The fabric should be laid directly onto the first coat whilst it is still wet and should be pressed in and smoothed out with a stiff nylon brush or split washer roller. Second and subsequent coats may then be applied as necessary, allowing 16 hours but not more than 24 hours at 20°C between each coat. Suitable grade of fabric is 110 g/m² open weave glass cloth.

Repairing and overcoating

Areas which have been previously coated with Nitocote EP410 and subsequently damaged can be readily overcoated. The existing coated surface must be well abraded, using a stiff wire brush or medium/coarse wet applied abrasive paper, to ensure a good bond. Overcoating may then be carried out as for new work.

Note: Although Nitocote EP410 may be applied at temperatures down to 7°C, the curing time increases significantly in the lower ranges. For cold weather working, it is recommended that materials are stored in a heated building and only removed immediately before use. Accelerated heating methods must not be used.

Cleaning

Tools and equipment should be cleaned with FOSROC SOLVENT 102 immediately after use.

Precautions

Health & Safety

Some people are sensitive to epoxy resins so gloves and a barrier cream. Kerodex 71, Rozalex 9, Debba-Wet Work or similar, should be used when handling these products.

If contact with the resin occurs, it must be removed, before it hardens, with a resin removing cream such as Kerocleanse 22, and Rozalex 42. Follow by washing with soap and water. Do not use solvent. The use of goggles is recommended but should accidental eye contamination occur, wash thoroughly with plenty of water and seek medical treatment immediately. Ensure good ventilation and do not smoke during use.

Fire

Nitocote EP410, Nitoprime 25, Nitocote EP203 and FOSROC SOLVENT 102 are flammable. Ensure adequate ventilation when using primers and solvents.

Do not smoke during use and do not use in the vicinity of a naked flame.

Flash points:

Nitocote EP410	65°C
Nitoprime 25	39°C
Nitoprime EP203 (BASE)	47°C
Nitoprime EP203 (HARDENER)	25°C
FOSROC SOLVENT 102	32°C

Storage

Shelf life 12 months if stored below 35°C.

Packaging

		Approx. litres
Nitocote EP410:	5.6 kg packs	(3.8 litres)
Nitoprime 25:	0.95 kg packs	(0.9 litres)
	4.6 kg packs	(4.5 litres)
Nitoprime EP203	10 kg packs	(7.1 litres)
FOSROC SOLVENT 102:	5 litre cans	

Supply

Contact your local FOSROC office or representative.

Supply

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



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Additional information

FOSROC produce a range protective coatings, decorative finishes, repair systems and flooring products designed to meet a wide variety of industrial and construction requirements.

Nitocote EP410 was formerly known as Nitotank

Nitoprime 25 was formerly known as Nitoflor Primer.

Nitoprime EP203 was formerly known as
HIM EPOXYPRIMER NT.

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FOSROC



PT. Fosroc Indonesia

Jl. Akasia II Blok A8 No. 1
Delta Silicon Industrial Park
Lippo Cikarang
Bekasi 17550
Indonesia

www.fosroc.com

Important note

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telephone:
+ 62 21 897 2103
+ 62 22 520 1308
+ 62 31 502 9142

fax:
+ 62 21 897 21073
+ 62 22 522 2713
+ 62 31 502 2711

email:
indonesia@fosroc.com

Registered Office: Jl. Akasia II Blok A8 No. 1, Delta Silicon Industrial Park, Lippo Cikarang, Bekasi 17550, Indonesia

