Nitocote® EP410

FOSROC constructive solutions

Epoxy resin tank and surface lining material

Uses

A hygienic and chemical resistant coating for brick and concrete walls, concrete and metal tanks, sluices and ducts.

Advantages

- Excellent adhesion - Compatible with all substrates. Can be applied directly on to mild steel and concrete
- Hygienic & Aesthetic – Forms a smooth, glossy and easy to clean surface on curing
- Abrasion resistant – Exceptional resistance to abrasion and to a wide range of chemicals
- Chemical resistant – Proven against a wide range of industrial chemicals

Description

Nitocote EP410 high build surface protective coating is based on solvent free epoxy resins specially formulated to provide a thixotropic coating suitable for application to vertical surfaces. It cures to form a smooth hygienic film with good resistance to a wide range of mineral and organic acids, alkalis, fats and oils.

Colour : Green (Non-stable).

Technical support

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

Properties

Pot life	:	30 mins at 27^{0}C
Specific gravity	:	1.4 to 1.5 g/cc
Cure time	:	Tack free after 6 hours @27^{0}C
Initial hardness	:	24 hours at 27^{0}C
Full cure	:	5 days at 27^{0}C

Chemical resistance

The results with some common chemicals using Nitocote EP410 high build surface protective coating film totally immersed for 1 year at 30^{0}C :

Ammonium hydroxide 30%	S
Causic soda 50%	R
Citric acid 50%	R
Detergents	R
Fatty acids (higher)	S
Hydrochloric acid 20%	R
Lactic acid 10%	R
Nitric acid 10%	R
Oil, Mineral acid	R
Petrol	R
Sodium Hypochlorite 10%	S
Sulpuric acid 20%	R
Water	R

Key :R : Resistant

S : Indicates slight attack under continuous immersion. 'Attack' refers to any etching or swelling observed but ignores discolouration.

Where chemicals at temperatures higher than ambient are involved, it may please be referred to Fosroc.

Preparation

Surface to be coated must be structurally sound, dry and free from loose material. All surface contamination must be removed. Grease and oil should be grit-blasted or water jetted. Deeper penetration must be removed by mechanical means. Any laitance must be removed from concrete surface by etching with Reebaklens (see separate data sheet) then washed off and dried. New concrete should be allowed to cure for at least 28 days prior to coating. Steel surfaces should be shot blasted to a profile of 125 microns.

Priming

Concrete : All concrete surfaces should be primed using Nitoprime 25, a two pack epoxy resin primer supplied in preweighed quantities ready for mixing. It is mixed in the proportions supplied and brushed in a thin continuous film over the concrete surface. Unlike Nitocote EP410 high build surface protective coating, the primer may be applied to a damp surface. The primer should be allowed to be cured for 4- 6 hours at 30^{0}C before applying Nitocote EP410 high build surface protective coating. The usage life after mixing is 30 minutes at 27^{0}C.

Mixing

The small can of hardener is completely emptied into the large can of resin and the components thoroughly mixed until a uniform colour is achieved.

Nitocote® EP410

It is recommended that mechanical mixing is employed by using a stirrer in a heavy duty slow speed electric drill fitted with a mixing paddle.

Coating

Nitocote EP410 high build surface protective coating is applied to the primed substrate by nylon brush and finally smoothened out using a steel trowel. A continuous coating of uniform thickness should be obtained. Normally 2 coats of Nitocote EP410 high build surface protective coating should be applied @ 250 mocrons/coat.

Cleaning

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

Estimating

Packaging and coverage

	Pack size	Coverage*
Nitocote EP410	4 litres	16 sqm/pack/coat @ 250 micron thickness or 8 Sqm/pack @ 500 micron thickness
Nitoprime 25	1 & 4 litres	5.5 - 6.5 m^2/litre
Nitoflor Sol	5 & 20 litres	
Reebaklens	5 & 20 litres	

* The practical coverage may vary depending on the application thickness and surface porosity of the substrate.

Storage

Shelf life

12 months when stored under normal warehouse conditions in unopened containers.

Precautions

Health & Safety instructions

Some people are sensitive to epoxy resin systems and may develop dermatitis on skin contact. Gloves and barrier creams should be used when handling primers and Nitocote EP410.

If contact with the skin occurs, wash with soap and plenty of water. Do not use solvent. Direct contact with the eyes will cause irritation and may cause serious damage if left untreated. Any eye contamination should be washed thoroughly with plenty of water and immediate medical treatment sought. The use of goggles when mixing is recommended. Smoking to be avoided.

Fire

Nitocote EP410 and Nitoflor Sol are flammable. Ensure adequate ventilation when using primers and solvents and do not use near a naked flame.

Flash point

Nitoflor Sol	33^{0}C

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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