Nitobond EP T



constructive solutions

Epoxy resin concrete bonding agent

CE EN 1504-4

Uses

For bonding fresh wet cementitious materials to existing cementitious surfaces.

For use on horizontal surfaces or on vertical surfaces where mortar or concrete can be supported by formwork. The long 'open' life makes it suitable for use with formwork or where additional steel reinforcement has to be fitted.

The product is ideal for roads, bridges, pavements, loading bays and factories, and for bonded or granolithic floor toppings. Nitobond EP T is equally suited to internal and external applications.

Advantages

Nitobond EP T may also be used as part of a repair system where a substrate/repair barrier is required or where the substrate is likely to remain permanently damp or wet.

- Can be applied on to dry or damp substrates
- Provides excellent adherence between old and new concrete
- It protects the reinforcements perfectly with its barrier effect against corrosion.
- Solvent-free can be used in enclosed locations

Description

Nitobond EP T is based on solvent-free epoxy resins containing pigments and fine fillers. It is supplied as a two-component material in pre-weighed quantities ready for on-site mixing and use.

(Nitobond EPFS, suitable for cold weather working, can be made available when specifically requested.)

Properties

Compressive strength (EN 12190)		
at 7 days	75 N/mm ²	
Tensile strength (BS 6319, Pt. 7)		
at 7 days	20 N/mm ²	
Flexural Strength (EN 196-1)		
at 7 days	40 N/mm ²	
Adhesion Strength to Concrete (EN 1542)		
at 7 days	4 N/mm ²	
Adhesion Strength to Damp Concrete		
at 7 days	3 N/mm ²	

Application Aspects

Pot life	85 mins
Density	1,49 g/cm ³
Shore D, at 7 days	88
Tack Free Time	3,5 hours

Instructions for use

Preparation

Clean all surfaces and remove any dust, unsound material, plaster, oil, paint, grease, corrosion deposits or algae. Roughen the surfaces, remove any laitance and expose the aggregate by light scabbling or grit-blasting.

Oil and grease deposits should be removed by steam cleaning, detergent scrubbing or the use of a proprietary degreaser. The effectiveness of decontamination and soundness of the substrate should then be assessed by a pull-off test.

Mixing

Any steel reinforcement and formwork should be prepared, cut to size and shape, and made ready for assembly before mixing commences.

Care should be taken to ensure that Nitobond EP T is thoroughly mixed. The 'hardener' and 'base' components should be stirred separately before mixing to disperse any settlement.

The entire contents of the 'hardener' tin should then be poured into the 'base' tin and the two materials thoroughly mixed using a suitable slow-speed drill and mixing paddle for 2 minutes until a fully uniform colour is obtained. The sides of the tin should then be scraped and mixing should continue for a further 2 minutes.

Application

Nitobond EP T should be applied as soon as the mixing process has been completed. It should be brush or roller applied to the prepared surfaces, being sure to achieve an unbroken coating across the entire substrate.

Nitobond EP T should be tacky before the new concrete, screed or mortar is placed.

The maximum overlay times (see Properties) should also be carefully observed. Failure to apply the new concrete, screed or mortar within the maximum overcoating time will result in Nitobond EP T becoming 'hard', thus creating a slip plane rather than a bonding action.

As soon as the Nitobond EP T has been applied, any required steel reinforcement and/or formwork should be erected and fixed securely in place.

Nitobond EP T

Cleaning

Nitobond EP T should be removed from tools, equipment and mixers with Fosroc Solvent 102 immediately after use. Hardened material can only be removed mechanically.

High temperature working

Whilst the performance properties of Nitobond EP T at elevated temperatures are assured, application under such conditions can sometimes be difficult. It is therefore suggested that, for temperatures above 35°C, the following guidelines are adopted as a prudent working regime:

- Store unmixed materials in a cool (preferably temperature controlled) environment, avoiding exposure to direct sunlight.
- Keep mixing and placing equipment cool, arranging shade protection if necessary. It is especially important to keep cool those surfaces of the equipment which will come into direct contact with the material itself.
- Try to eliminate application in the middle of the day, and certainly avoid application in direct sunlight.
- Have a ready supply of Fosroc Solvent 102 available for immediate cleaning of tools after use.

Storage

Nitobond EP T has a shelf life of 12 months. Fosroc Solvent 102 has a shelf life of 24 months if kept in a dry store in the original unopened packs.

If stored at high temperatures, the shelf life may be reduced.

Limitations

Nitobond EP T should not be applied when the temperature is below 5°C or is 5°C and falling.

Supply		
Nitobond EP T	6 kg packs	
Component A	4 kg	
Component B	2 kg	
Fosroc Solvent 102	5 litre cans	
Consumption		
Nitobond EP T	0,25 – 0,75 kg/m²	

The coverage figures for Nitobond EP products are theoretical - due to wastage factors and the variety and nature of possible substrates, practical coverage figures will be reduced.

Precautions

Health and safety

Nitobond EP T and Fosroc Solvent 102 should not come in contact with skin or 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, remove immediately with resin removing cream followed by washing 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

Nitobond EP T is non-flammable. Fosroc Solvent 102 is flammable. Keep away from sources of ignition. No smoking. In the event of fire, extinguish with CO_2 or foam. Do not use a water jet.

Flash points

Fosroc Solvent 102 33°C

For further information, refer to the Product Material Safety Data Sheet.

† See separate data sheet



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. All Fosroc datasheets are updated on a regular basis. It is the user's responsibility to obtain the latest version.

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