

## Penetrating hydrophobic silane-siloxane treatment for concrete and masonry

### Uses

To protect atmospherically exposed reinforced concrete structures from attack by chloride ions and water intrusion. The product is also suitable to protect other cementitious substrates and masonry. Nitocote SN502 is suitable for use on all types of structures, including those in coastal environments. It is equally suitable for new and existing structures.

### Advantages

- Penetrates into substrates
- Non staining
- Reduces water and chloride intrusion
- Increases freeze thaw resistance
- Minimises efflorescence
- Allows water vapour to escape from the structure
- Chemically resistant to ice melting compounds, fuels, oils and atmospheric contaminants

### Description

Nitocote SN502 is a single component penetrating silane-siloxane system which penetrates into porous substrates and then reacts to produce a bonded hydrophobic lining to the pores. Although allowing passage of water vapour from the substrate it significantly reduces the absorption of water and water borne salts.

Nitocote SN502 does not discolour most substrates and has excellent resistance to weathering.

### Design criteria

Nitocote SN502 should be applied in two coats. To achieve the correct penetration and protection Nitocote SN502 must be applied on the substrate at the coverage rates recommended.

### Specification

#### Silane-siloxane penetrating treatment

The penetrating treatment shall be a silane-siloxane system with very low penetration of chloride ion and a reduction in water absorption of not less than 85% when tested to the ASTM C642.

### Properties

The values obtained are for Nitocote SN502 applied at the minimum recommended application rate.

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**Rapid chloride permeability ASTM C1202** : Very low

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**Reduction in water absorption ASTM C642** : 85%

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### Instructions for use

#### Preparation

All surfaces should be dry and free from contamination such as oil, grease, loose particles, decayed matter, moss, algal growth, laitance and all traces of mould release oils and curing compounds. This is best achieved by lightly sand-blasting the surface. Where moss, algae or similar growths have occurred, treatment with a proprietary biocide should be carried out after the sand-blasting process.

#### Application

In order to obtain the penetrating properties of Nitocote SN502, it is important that the correct rates of application and overcoating times are observed.

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**Number of coats** : 2

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#### Theoretical application

**rate per coat** : 0.2 litres/m<sup>2</sup>

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**Overcoating time** : 2 hours @ 20°C

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Nitocote SN502 should be applied in two flood coats until the recommended total application rate of 0.4 litre per square metre has been achieved. This is best accomplished by using portable spray equipment of the knapsack-type. If in doubt about the condition of the substrate, the local Fosroc office should be consulted.

Nitocote SN502 should be allowed to dry for a minimum of 2 hours (at 20°C) before continuing.

#### Cleaning

Nitocote SN502 should be removed from tools and equipment using Fosroc Solvent 102 immediately after use.

# Fosroc Nitocote SN502

## Limitations

- Nitocote SN502 should not be contaminated with water. The application of Nitocote SN502 should not commence if the temperature of the substrate is below 2°C.
- Nitocote SN502 may darken some polymer modified substrates and white cement. A trial area is recommended.
- Nitocote SN502 should not be permitted to come in contact with glass.

## Technical support

Fosroc offers a comprehensive technical support service to specifiers, end users and contractors. It is also able to offer on-site technical assistance, an AutoCAD facility and dedicated specification assistance in locations all over the world.

## Estimating

### Supply

|                       |   |                             |
|-----------------------|---|-----------------------------|
| <b>Nitocote SN502</b> | : | 20 and 200 litre containers |
|-----------------------|---|-----------------------------|

|                           |   |              |
|---------------------------|---|--------------|
| <b>Fosroc Solvent 102</b> | : | 5 litre cans |
|---------------------------|---|--------------|

### Coverage and yield

|                       |   |  |
|-----------------------|---|--|
| <b>Nitocote SN502</b> | : | 5 m <sup>2</sup> /litre/coat ( Two coat application recommended) |
|-----------------------|---|--|

**Note** : For substrates with low permeability the coverage rate per coat will be reduced. Site trials are recommended to ascertain maximum coverage rate applicable to the substrate in question.

## Storage

When stored in the original unopened container in cool, dry conditions away from sources of heat and naked flames, Nitocote SN502 will have a shelf life of 12 months.

If stored at high temperatures and/or high humidity conditions the shelf life will be reduced.

## Precautions

### Health and safety

Nitocote SN502 and Fosroc Solvent 102 should not come into contact with skin and eyes or be swallowed. Avoid inhalation of vapour/spray. Use only in well ventilated areas. In case of insufficient ventilation, wear suitable respiratory protection.

Wear suitable protective clothing, gloves and eye/face protection. Barrier creams provide additional skin protection.

Should accidental skin contact occur, remove immediately with a suitable skin cleanser, followed by washing with soap and water.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

If swallowed seek medical attention immediately – **do not** induce vomiting.

For additional information see relevant Product Safety Data Sheet.

### Fire

Nitocote SN502 and Fosroc Solvent 102 are flammable. Do not expose to naked flames or other sources of ignition. **No smoking**. Containers should be tightly sealed when not in use. In the event of fire, extinguish with CO<sub>2</sub> or foam.

### Flash point

|                       |   |      |
|-----------------------|---|------|
| <b>Nitocote SN502</b> | : | 38°C |
|-----------------------|---|------|

|                           |   |      |
|---------------------------|---|------|
| <b>Fosroc Solvent 102</b> | : | 33°C |
|---------------------------|---|------|

\* Denotes the trademark of Fosroc International Limited

† See separate data sheet



Al Gurg Fosroc LLC

Post Box 657, Dubai  
United Arab Emirates

[www.fosroc.com](http://www.fosroc.com)

## 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.**

### Head Office

**telephone:** (+9714) 2039699

**fax:** (+9714) 2859649

**email:** [agf@fosroc.com](mailto:agf@fosroc.com)

### Regional offices

Abu Dhabi, Al Gurg Fosroc  
Bahrain, YBA Kanoo  
Kuwait, Boodai  
Oman, Al Amana  
Qatar, Tadmur

**telephone:** 673 1779  
**telephone:** 17738200  
**telephone:** 4817618  
**telephone:** 24815080  
**telephone:** 4432365

**fax:** 673 1449  
**fax:** 17732828  
**fax:** 4832124  
**fax:** 24817554  
**fax:** 4419517

**email:** [abudhabi@fosroc.com](mailto:abudhabi@fosroc.com)  
**email:** [bahrain@fosroc.com](mailto:bahrain@fosroc.com)  
**email:** [kuwait@fosroc.com](mailto:kuwait@fosroc.com)  
**email:** [oman@fosroc.com](mailto:oman@fosroc.com)  
**email:** [qatar@fosroc.com](mailto:qatar@fosroc.com)

