



Expancote* SN502

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. Expancote* 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
- Minimizes efflorescence
- Allows water vapor to escape from the structure
- Chemically resistant to ice melting compounds, fuels, oils and atmospheric contaminants

Description

Expancote* 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.

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

Design criteria

Expancote* SN502 should be applied in two coats. To achieve the correct penetration and protection Expancote* 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 a reduction in chloride ion penetration not less than 92% and a reduction in water absorption of not less than 85% when tested to the NCHRP 244 standard.

Properties

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

Reduction in chloride ion penetration –

To NCHRP 244 Standard : 92%

Australian C.T.I. method : 98%

Reduction in water absorption –

To NCHRP 244 Standard : 85%

Australian C.T.I. method : 94%

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 Expancote* SN502, it is important that the correct rates of application and overcoating times are observed.

Number of coats : 2

Theoretical application

rate per coat : 0.2 litres/m²

Overcoating time : 2 hours @ 20°C

Expancote* 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 Expanchem Fospak office should be consulted.

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

Cleaning

Expancote* SN502 should be removed from tools and equipment using Expanchem Solvent 102 immediately after use.



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Limitations

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

Technical support

Expanchem Fospak 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

Expancote* SN502 : 20 and 200 litre containers

Expanchem Solvent 102 : 5 litre cans

Coverage and yield

Expancote* SN502 : 5-10 m²/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, Expancote* 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

Expancote* SN502 and Expanchem Solvent 102 should not come into contact with skin and eyes or be swallowed. Avoid inhalation of vapor/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

Expancote* SN502 and Expanchem 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 CO₂ or foam.

Flash point

Expancote* SN502 : 38°C

Expanchem Solvent 102 : 33°C

* Denotes the trademark registered



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