

Nitowrap CAS

High performance, high strength carbon yarns used as an anchorage for structural connections of Nitowrap Range FRP Systems

Uses

Nitowrap CAS is a system of unidirectional (ud) high quality carbon fibre yarns used with epoxy saturating resins. It is used for structural connections/anchoring of carbon fibre systems to prevent/delay debonding of fibres and increase bending, shear or compression strength.

Advantages

- Enhances the bond between FRP systems and substrate and delays debonding.
- High tensile strength and elastic modulus
- Corrosion resistance
- Rapid installation possible
- Light weight system reduces
- No pre-fabrication required, can be shaped to existing contours
- May be applied by dry or wet wrap technique



Properties

Colour	Black
Diameter	5, 8 and 12 mm
Length	100 m
Fiber density	1,8 gr/cm ³
Tensile Strength of Fiber	>3800 MPa
Tensile Modulus of Fiber	>230 GPa
Ultimate Elongation	1,7%

Application Instructions

Fosroc recommends that application of any structural strengthening system should be undertaken by trained and experienced contractors.

Nitowrap products must be applied in strict accordance with the product method statement, a copy of which may be obtained from your nearest Fosroc technical office.

Surface Preparation

Concrete surfaces must be dry, smooth and free from debris or loose material. Surfaces must be fully cured and free from coatings, impregnations or contamination.

Thorough preparation of the substrate is vital. Light grit blasting is recommended to remove all deleterious substances and provide a suitable surface. The surface should be vacuumed after mechanical preparation.

General Instruction for Use*

1. Drill holes in concrete surface as per design requirements.
2. Clean the hole and remove all the dust by air blowing
3. Cut the Nitowrap CAS into required lengths
4. Fill the hole with Nitowrap Encapsulation Resin T saturating resin.
5. Insert the lower portion of anchor into the adhesive filled hole.
6. Spread the remaining portion of the anchor in desired direction
7. Apply a coat of Nitowrap Encapsulation Resin T over the spreaded portion of anchor.
8. Sprinkle Anti Slip Grains (1 – 2 mm) silica sand on it.
9. Allow curing for 3 days before coating.

*The above instructions is for generic purpose, however the actual application would be finalised by the engineer in charge based on the type of application.

Cleaning

Nitowrap Encapsulation Resin T should be removed from tools and equipment using Fosroc Solvent 102 immediately after use. Hardened material may be removed mechanically.

Nitowrap CAS

Supply	
Nitowrap CAS	100 meters rolls

Limitations

Design calculations must be approved by a licensed professional engineer in accordance with the prevailing design standards of the country where the material will be installed.

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Storage

Nitowrap CAS should be stored in covered warehouse conditions, and kept clean and dry.

Shelf life

Nitowrap CAS has an unlimited shelf life when kept in appropriate storage conditions.

Precautions

Health and Safety

For further information refer to the appropriate Product Safety Data Sheet.

Fire

Nitowrap CAS is non-flammable.

Additional Information

Fosroc manufactures a wide range of complementary products which include :

- waterproofing membranes & waterstops
- joint sealants & filler boards
- cementitious & epoxy grouts
- specialised flooring materials

Fosroc additionally offers a comprehensive package of products specifically designed for the repair and refurbishment of damaged concrete. Fosroc's 'Systematic Approach' to concrete repair features the following :

- hand-placed repair mortars
- spray grade repair mortars
- fluid micro-concretes
- chemically resistant epoxy mortars
- anti-carbonation/anti-chloride protective coatings
- chemical and abrasion resistant coatings

For further information on any of the above, please consult your local Fosroc office

** Denotes the trademark of Fosroc International Limited
† 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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