

Nitoplate CPA 30

(Formerly Known as Nitoplate FEZ Adhesive)

constructive solutions

Thixotropic Resin Adhesive designed for bonding of Nitoplate and Nitorod fibre strengthening systems.

Uses

Nitoplate CPA 30 is a bespoke designed resin adhesive for Fosroc structural strengthening range. It will structurally bond Nitoplate and Nitorod systems to concrete and masonry substrates providing durable reinforcement.

Typical applications include, but are not limited to, dynamic and dead load increases, seismic strengthening and repairing structurally damaged concrete. Nitoplate CP may be used on civil structures and buildings.

Advantages

- High Tensile strengths
- High Shear strengths
- High initial grab
- Excellent adhesion to concrete, masonry and numerous other common construction materials.
- High life expectancy
- Two-colour system visually indicates when material is mixed.
- Thixotropic consistency for overhead use with minimal wastage.
- Typically low build reducing effects on structural dimensions and clearance
- May be used to fill minor surface defects

Description

Nitoplate CPA 30 is resin adhesive formulated specifically for adhering Nitoplate carbon fibre laminates and embedding Nitorod carbon fibre rods. With high tensile strength and high tensile modulus When correctly designed and applied, the Nitoplate CP system may improve structural load carrying capacity, flexural strength, and provide resistance to deformation.

For adhesion of Nitowrap strengthening fabrics we recommend the use of Nitowrap Primer and Nitowrap Encapsulaton Resin.

Fosroc also provides the following materials for structural strengthening:

Nitoplate CP	: Carbon Laminate pultruded plates
Nitowrap CW	: Carbon fabric materials
Nitowrap AW	: Aramid fabric materials
Nitowrap GW	: Glass fabric materials
Nitorod CR	: Carbon fibre pultruded rods

Aramid plates and rods are also available upon request. Fosroc also supplies ancillary primers, adhesives and repair materials.

Properties

Table 1: Nitoplate CPA 30 – Epoxy Adhesive

Test	Result
Specific Gravity at 23°C	~1.6
Shear Adhesion Strength (ASTM D1002-10)	>6 MPa
Compressive Strength (ASTM D695-10)	> 80 MPa
Flexural Strength (ASTM D790-15)	> 30 MPa
Tensile Strength (ASTM D638-10)	> 25 MPa
Pull off adhesion to concrete (ASTM D7234-19)	> 2 MPa (Concrete failure)
Pull off adhesion to Steel (ASTM D4541-17)	> 5 MPa
Coefficient of Thermal Expansion per °C	9 / 10 ⁻⁵

Technical Support

Fosroc offers a technical support service to specifiers, end users and contractors as well as unrivalled onsite technical assistance in locations all over the world.

Application Instructions

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

Nitoplate 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 mechanical key. The surface should be vacuumed after mechanical preparation.

All defects, including cracks, loose concrete blowholes and surface imperfections should be made good with Nitomortar repair materials as advised by Fosroc.

Mixing

Pour Nitoplate CPA30 into a clean mixing vessel at a ratio of 2 parts Base to 1 Part of Hardener by weight. Mix well using a low speed powered mixer (300-500 RPM) for a minimum of 5 minutes. Ensure there are no visual streaks in the mix-

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Application

Consult Nitorod or Nitoplate Technical Data Sheets for specific application recommendations relating to these products.

Finishing

To obtain a smooth finish use a clean steel trowel while the material is still wet. Do not use solvents to rub the surface as this may affect the strengths of the cured material.

Nitoplate CPA 30 is inert and corrosion resistant once fully cured.

Certain project specific considerations may require the system to be covered by coatings or renders. These are permissible but should be selected in consultation with Fosroc's technical office.

Cleaning

Nitoplate CPA30 Adhesive should be removed from tools and equipment using Fosroc Solvent 102 immediately after use. Hardened material may be removed mechanically.

Estimating

Supply

Nitowrap CPA30	: 15 kg pack
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Coverage

Theoretical Coverage 1.6kg/m²/mm thick

For coverage relating to Nitoplate CP, consult relevant technical data sheet. Coverage of Nitorod CR will depend upon the size of the concrete cut.



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Resin Times

	10 °C	20 °C	35 °C
Pot Life	~ 120 mins	~ 60 mins	~ 45 mins
Open Time	> 8 hrs	~ 4 hrs	~ 2 hrs
Full Cure	5 days		

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.

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

Storage

Store between 5 to 25°C, protect from moisture and direct sunlight.

Shelf Life

Nitoplate CPA30 adhesive has a shelf life of 12 months when stored in appropriate conditions.

Precautions

Health and Safety

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

Fire

Non-Flammable.

In service, observe the Glass Transition Point

Important note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions for the Supply of Goods and Services, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation, specification of 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 of information given by it.