

X-Wrap Plate Adhesive

High performance epoxy adhesive for carbon fiber strengthening systems

Product Description

X-Wrap Plate Adhesive is a high build high performance high strength thixotropic epoxy resin used for bonding X-Wrap carbon fiber strips, plate and rods and other external strengthening materials.

Advantages

- Non slump
- High strength
- Easy to use
- Primerless
- Resistant to wide range of chemicals
- Standard and slow grades available

Typical Uses

- Bonding of carbon fiber strips and plates
- Bonding of carbon fiber rod into concrete
- Bonding of external steel plate reinforcement

Specification Compliance

X-Wrap Plate Adhesive meets the requirements of the UK Department of Transport Advice Note BA 30/94.

Laboratory Test Data

Properties	Typical Results
Compressive strength	90MPa
Tensile strength	23MPa
Flexural strength	50MPa
Compressive modulus	7GPa
Tensile modulus	10GPa
Thermal expansion	$33 \times 10^{-6}/^{\circ}\text{C}$
Single lap shear strength	>18MPa
Water absorption	0.4%
Tg (DMTA)	>65°C

Application Properties

Temperature application range	Standard		Slow	
	10°C	20°C	10°C	20°C
Pot life	60 min	20 min	45 min	20 min
Initial cure	120 min	50 min	90 min	50 min
Service time	36 hrs	24 hrs	24 hrs	24 hrs

Packaging

5kg packs, and each will yield approximately 3 litres of mixed material.

Shelf Life

18 months when stored below (40°C) under shade in a dry environment.

Installation Guidelines

X-Wrap Strengthening Systems can only be installed by an NCC X-Calibur Registered Contractor using trained personnel and the correct equipment. NCC X-Calibur does not allow any contractor on to the register unless they satisfy strict selection criteria. For each application NCC X-Calibur will provide a detailed method statement that the Registered Contractor will work to.

Mixing

Thoroughly mix the base 'Part A' prior to adding the hardener 'Part B' using a slow speed drill (500rpm) fitted with an X-Roc Epoxy Mortar Mixer Paddle. After mixing the base, add all the hardener and mix for a further 3 minutes or until both components have fully dispersed and are uniform in color. Be sure to rotate the mixer throughout the drum. Mix only full packs.

Note: To ensure all the hardener is added to the base, it will be necessary to use a scraper to remove all of the hardener from the sides of the can.

Clean Up

Remove uncured material from equipment using X-Shield Solvent. Cured material can only be removed by mechanical means.

Limitations

- Do not finish using solvent.
- Do not apply below 4°C or above 35°C.
- Do not apply to damage or wet substrate.
- Do not apply if dew point is 3°C or less.
- Avoid excessive application.
- Avoid skin contact.
- Do not discard into the water system.

Health and Safety

This product is for industrial use only by trained operatives. It is potentially hazardous if not used correctly. Please refer to the Material Safety Data Sheet (MSDS) prior to the purchase and use of this product. The MSDS can be obtained via our website www.ncc.com.eg.

Authorized Technical Specialist

Please note that only NCC X-Calibur Authorized Technical Specialists ('ATs') are permitted to change any of the information in this data sheet or to provide written recommendations concerning the use of this product. Visit www.ncc.com.eg for a full list of NCC X-Calibur ATs.

Datasheet Validity

NCC X-Calibur makes modifications to its product datasheets on a continuous basis. Please check the datasheet update section on www.ncc.com.eg to ensure you have the latest version.

Warranties

NCC X-Calibur supplies products that comply with the properties shown on the current datasheets. In the unlikely event that products supplied are proved not to comply with these properties, then we will replace the non-compliant product or refund the purchase price. NCC X-Calibur does not warrant or guarantee the installation of the products as it does not have control over the installation or end use of the products. Any suspected defects must be reported to NCC X-Calibur in writing within five working days of being detected. NCC X-Calibur Construction Chemicals **makes no warranty as to merchantability or fitness for a particular purpose and this warranty is in lieu of all other warranties express or implied.** NCC X-Calibur Construction Chemicals shall not be liable for damages of any sort including remote or consequential damages, down time, or delay.