

X-Roc StrongRepair

High strength non-shrinkage polymer modified repair mortar

Product Description

X-Roc StrongRepair is a single component, non-shrinkage repair mortar, high strength concrete repair mortar manufactured from selected cements, aggregates and additives, reinforced with fibers. It has batching cementitious mortar.

Advantages

- High bond strength
- Non-Shrinkage Mortar
- Breathable
- Low permeability
- Excellent weathering resistance
- Single component
- Economic and Easy to use

Uses

High strength concrete repairs for general repair purposes of damaged or spalled concrete and for protection of steel reinforcement roads against corrosion vertical and horizontal restoration of:

- Parking garages
- Floors, walls and columns
- Water and wastewater tanks
- Tunnels, dams, bridges
- Marine structures

Laboratory Test Data

Property	Typical Results
Compressive strength MPa	40 MPa
Flexural strength MPa	8-9 MPa
Adhesion strength to concrete	2 MPa

Physical Properties

Density : 2±0.2 gm/cm³

Setting Time: Initial (180 min.) Final (250 min.) at 25C.

Packaging

25kg Bags

Theoretical Coverage

2kg/M² (1mm thickness)

Shelf Life

12 months when stored at below 35C (95F) under shade in a dry environment.

Installation Guidelines

NCC X-Calibur provides detailed method statements on all its products for use in various applications. These must be referred to prior to starting work. The information below is a summary intended for guidance only.

Surface Preparation

Concrete substrate must be structurally sound. Loose or unsound concrete should be removed. Surfaces must be entirely free of oil, grease, paint, corrosion deposits, dust, laitance or other surface deposits. Saw cut around the edge of the repair to a minimum layer thickness 10 mm. Reinforcing steel should be fully exposed with enough room behind the steel to place the repair mortar.

Protection of reinforcement steel

Remove all corrosion from the exposed steel in accordance with ICRI Technical Guideline No. 03730. For additional protection against corrosion and to protect the adjacent edges of the repair, coat the steel with X-Shield Primer ZRE. The steel may also be protected using X-Roc EpoxyBond or X-Roc Latex mixed with cement. Prior to using either of these products, please consult with an NCC X-Calibur Authorized Technical Specialist.

Substrate Priming

After surface preparation has been completed, the substrate should be soaked with water and not allowed to dry out. The substrate should be primed using either of the following methods:

•Priming with X-Roc BondCure

X-Roc BondCure is an acrylic bonding agent that is used undiluted straight from the pack. It is particularly useful in conditions where the bonding agent may dry out. Brush X-Roc BondCure into the saturated surface dry substrate, taking care to avoid ponding or excessive application.

•Priming with X-Roc Latex

X-Roc Latex is a styrene butadiene rubber bonding agent that is mixed with cement 1:1.5 by volume to produce a latex/cement slurry. Brush the latex/cement slurry into the saturated surface dry substrate, taking care to avoid ponding or excessive application. The latex/ cement slurry **must not** be allowed to dry out, otherwise debonding may occur.

•Priming with X-Roc EpoxyBond

In immersed conditions or where the maximum possible bond strength is required; or where a saturated surface dry substrate is not possible, X-Roc EpoxyBond should be used. Mix the entire contents of Part A with the entire contents of Part B until a uniform color is achieved. Brush the mixed material into the surface of the substrate, taking care to avoid ponding or excessive application. X-Roc StrongRepair must be applied while EpoxyBond is still tacky.

Mixing

Add X-Roc StrongRepair to 4 ltr water and mix for three minutes until fully dispersed. Use an NCC X-Calibur approved forced action mechanical mixer.

Application

The slurry coat by brush over reinforcing rods and concrete, then slush mix under and between steel rods and make sure all cracks and voids are filled, reinforce rods should be completely surrounded with the mix in order to avoid corrosion, then mix it to a thicker consistency and apply successive layers of 20-25mm. Scratch each layer before applying the next in order to improve the bonding, each new layer should be apply within 1:2 hours

Thickness

The application thickness should be between 10mm and 25mm for each layer. Applications in excess of the thickness quoted above may be achieved by "keying" the compacted layer and then applying X-Roc BondCure. Once this layer has reached sufficient strength, apply a primer coat of X-Roc BondCure and proceed as before.

Curing

Cure immediately after finishing using X-Roc BondCure or cure continuously in accordance with good concrete practise for seven days.

Limitations

Ensure the temperature of the mixed mortar does not exceed 95F (35C).
Do not mix by hand.
Do not part mix, use only full bags.
Do not apply in rain or wet conditions or at temperatures below 40F (4C).
Do not expose to running water until the product is cured fully.

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 Chemistry. **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 Chemistry. shall not be liable for damages of any sort including remote or consequential damages, down time, or delay.