



X-Tech CemScreed RFR

Ready-mix fiber reinforced screed admixture system

Product Description

X-Tech CemScreed RFR is an admixture system that contains fibers, water reducers and polymers to produce consistent quality fast drying floor screeds. It is manufactured to produce consistent quality screed mixes that are easy to install. Both non-structural and structural fibers can be incorporated in the screed.

It is also available as a pre-bagged premix requiring the addition of 5 and 10mm aggregate and water to be added at site. The water content to be used is printed on the bag.

Advantages

- Meets SCAQMD Rule 1113 & LEED VOC Limits
- Formaldehyde free
- Low shrinkage
- Low permeability
- Consistent quality
- Easy to use
- Fast dry
- Pumpable
- Can be delivered in large volumes
- Range of products available

Uses

- Floor screeds
- Levelling of uneven slabs prior to application of final surface
- Replacement of damaged floor screeds.

Laboratory Test Data

Property	Typical Results	
	X-Tech CemScreed RFR	X-Tech CemScreed RFR HS
Compressive strength	≥20MPa at 7d ≥30MPa at 28d	≥25MPa at 24h ≥50MPa at 28d
Tensile strength	≥3MPa at 28d	≥5MPa at 28d
Flexural strength	≥8MPa at 28d	≥12MPa at 28d
ISCR*	≤3mm	≤2mm

* In-Situ Crushing Resistance: 2kg mass dropped through 1m

Packing

25 Kg bags.

Application Properties

Useable life	Up to 2 hours depending on temperature
Cure time	Light traffic after 24 hours Heavy traffic: 7 days
Dry time	50mm per week at 20C 75mm per week at 35C
Minimum thickness	Bonded screed: 25mm Unbonded screed: 50mm Floating screed: 65mm (domestic) 75mm (heavy duty)

A full scale mock up should be carried out to determine the suitability of all screed applications. Thinner screed applications should only be accepted subject to a successful mock up. Applications less than 60mm thick increase the risk of cracking although minor cracking can be considered insignificant if the screed remains fully bonded.

Specification Compliance

SCAQMD Rule 1113
LEED NC2009 IEQ 4.2
BRE Screed Test: Category A
BS 8204: Class A

Volatile Organic Content

VOC = <10 g/L

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. Screeds should only be laid by an experienced crew.

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. The concrete surface should be scabbled or captive blast to produce an ICRI CSP 9 profile. If being used to repair floor screeds saw cut around the edge of the repair to a minimum depth of 10mm. Soak the substrate with water for a minimum of 1 hour if using X-Roc BondCure as the primer, do not allow to dry out. Do not soak with water if using X-Roc EpoxyBond

- 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-Tech EpoxyBond LV

In immersed conditions, where the maximum possible bond strength is required, or where a saturated surface dry substrate is not possible or where larger bay areas are required, X-Tech EpoxyBond LV 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. The screed mix must be applied while X-Roc EpoxyBond is still tacky.

Application

The application thickness on a reinforced concrete slab should be between 25mm and 120mm. 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.

Apply to large areas using the checker board technique in areas no larger than 4m x 4m bays. 4m wide strips can be cast continuously provided that control joints are formed every 4 m during casting or are cut within 24 hours. Areas of up to 6m by 6m or 6 m wide strips with control joints, can be cast when using X-Roc EpoxyBond as the bonding agent. Do not add additional water or re-temper the mix. Do not use water to finish the surface. When finishing do not overwork otherwise a weak layer of laitance will be formed which will be detrimental to the bond of subsequent finishes.

Pipes and Conduits

The minimum cover over pipes and conduits should be 20 mm and a layer of 19g or greater galvanized mesh should extend 75mm each side of the pipe or conduits with a 75mm overlap.

Curing

It is essential that screeds are cured correctly to ensure controlled water loss and to prevent de-bonding and random cracking. In hot windy conditions mist spray with water and then apply X-Roc BondCure immediately after finishing and cover with polyethylene sheet taking care to ensure it is fully sealed at all edges. If this cannot be done use wet hessian or sand beneath the polythene sheet and keep continuously wet for a minimum of 7 days. If the screed is being waterproofed using X-Shield FlexCoat or X-Shield Flexpruf ,cure for 2 days prior to application.

Limitations

Do not add additional water or re-temper the mix. Do not apply in rain or wet conditions or at temperatures below 5C. Lower temperatures produce a slower set; higher temperatures produce a faster set. 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 ('ATSS') 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 ATSS.

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 these 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 Inc.

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