

X-Pruf CrystalMix Powder

Crystalline waterproofing additive for concrete

Product Description

X-Pruf CrystalMix Powder is a unique crystalline additive for concrete that forms pore blocking crystal fibers which permanently waterproof treated concrete.

Advantages

- Resists positive and negative hydrostatic pressure
- Increases concrete strength
- Can seal cracks up to 1/64" (0.4mm)
- Increases freeze/thaw resistance of concrete
- Non toxic
- Chloride free

Uses

- Any concrete mix requiring waterproofing
- Tunnels and subway systems
- Marine structures
- Bridges
- Foundations
- Basements and elevator pits
- Water and wastewater structures
- Parking structures
- Swimming pools

Laboratory Test Data

	Control	CrystalMix
Water Permeability	9×10^{-7} cm/sec	5×10^{-11} cm/sec

The above result was obtained from a constant workability mix containing 500lb/yd³ (300 kg/m³) of Type 1 Portland cement with a 0.53 water/cement ratio mix using 3% of X-Pruf CrystalMix Powder by weight of cement. A 6% strength increase at 28 days was also observed. Strength increases can be as high as 15% at constant water cement ratio.

Volatile Organic Content

VOC = 0 g/L

Packaging

25kg bags.

Dosage

Ensure that the water/cement ratio of the concrete does not exceed 0.55 before X-Pruf CrystalMix Powder is added.

- Use 2% by weight of cement at water/cement ratios of 0.45 or lower.
- Use 3% by weight of cement at water/cement ratios of 0.45 to 0.55.

Installation Guidelines

Batching

X-Pruf CrystalMix Powder should be added along with the cement into the mixer.

It is essential that trial mixer be carried out prior to producing concrete and properties such as workability, setting time and compressive strength determined.

In hot weather condition the additive of X-Pruf CrystalMix Powder may accelerate the setting time of the mix and the use of a retarding admixture such as X-Mix RPS may be required.

Curing

Cure concrete containing X-Pruf CrystalMix Powder in accordance with the recommendations in the latest edition of the ACI Manual of Concrete Practice.

Storage

Shelf life in unopened, original containers is 12 months when stored under shade at between 40 and 86F (4 to 35C).

Limitations

The water/cement (w/c) ratio of the concrete must not exceed 0.55.

Do not use at concrete temperatures below 40F (4C).

Health and Safety

This product is for industrial use only by trained operatives. It is not considered hazardous if 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 Support 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 ATSSs.

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.