

Technical Datasheet

X-Mix SRA Powder

Shrinkage Reducing Admixture

Product Description

X-Mix SRA Powder is a high effective shrinkage-reducing admixture was developed specifically to reduce drying shrinkage of concrete and mortar, and the potential for subsequent cracking.

X-Mix SRA Powder operates by interfering with the surface chemistry of the air/water interface within the capillary or pore, reducing surface tension effects and consequently reducing the shrinkage as water evaporates from within the concrete.

Advantages

- Enhances durability.
- Minimizes curling
- Reduces drying shrinkage cracking
- Control micro-cracking thereby improving aesthetics, watertightness and durability
- Reduction in drying shrinkage minimizes prestress loss
- Improves permeability.
- Improves compaction.
- Watertight Concrete.

Uses

X-Mix SRA Powder is suitable for use in the following condition:

- Self compacted concrete.
- Ready-mixer or precast concrete structures requiring shrinkage reduction and long term durability
- Concrete screed.
- Shotcrete, grout and mortars.

Packaging

X-Mix SRA Powder is Available in 10 kg paper bags.

Shelf Life

X-Mix SRA Powder has a minimum shelf life of 12 months under shaded area. Must be protected from direct sunlight and frost.

Product Properties

Form	Powder
Color	White Powder
Specific gravity @25°C	0.85±0.1
P ^H	N/A
Main action	Shrinkage reducing admixture
Alkali content (Na ₂ O equivalent) according to EN 480-12 (%)	N/A
Nitrate content	Nil

Specification Compliance

- ASTM C 157

Dosage

Dosage is 0.3 – 1.5% of weight of cement @ 25° C, including any pozzolanic materials and cement replacements. The actual dosage rates and water reduction rate are dependent on the :

- 1- Cement rate in mix design
- 2- Quality of cement & aggregates.
- 3- Water/Cement-ratio.
- 4- Ambient temperature (Weather).

Therefore, it is advisable to carry out trial mixes.

Dosages outside this range can be used to produce particular mix requirements, provided that extensive trial mixes and laboratory have been conducted.

Dispensing

X-Mix SRA Powder should be added to the concrete while being mixed using a suitable dispenser. Add to the concrete with the mixing water to obtain best results.

APPLICATION PROCEDURE

Add X-Mix SRA Powder into the mixer after the other ingredients (water, cement, aggregates). X-Mix SRA Powder is most effective if added when cement and aggregate granules are already wet, and least effective when the admixture is mixed with dry solids which partially absorb it (especially if porous). It is advisable to begin adding the admixture with an automatic dispenser after adding at least, half of the batching water required.

Compatibility

X-Mix SRA Powder is compatible with a wide range of admixtures used in the same concrete mix. All admixtures should be added to the concrete separately and must not be mixed together prior to addition. X-Mix SRA Powder is compatible with all types of portland cement including sulphate resisting and cementitious materials such as ggbs, fly ash and micro silica.

Clean Up

Clean up spillages of by absorbing onto sand and transferring to suitable containers. Any residue should be washed down with large quantities of water. The disposal of excess or waste material should be carried out in accordance with local regulations.

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 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

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