

Technical Datasheet

X-Mix R2

Set Retarding/Water Reducing/Plasticizing Admixtures.

Product Description

X-Mix R2 is a liquid set retarding concrete admixture with a powerful plasticizing effect, manufactured from high performance retarders. Substantial water reduction can be achieved without loss of workability. It has been designed for use alone or with other grades of admixture.

X-Mix R2 is suitable for use with all types of ordinary Portland cements, sulfate resisting Portland cement and pozzolanic materials and cement replacements.

Advantages

- Improves workability without increasing water content.
- Improves workability retention.
- Reduces cement content.
- Enhances durability.
- Minimizes bleeding and segregation.
- Improves surface finish .
- Non-toxic.
- Chloride free.

Uses

X-Mix R2 is suitable for use where high quality concrete is required in difficult conditions, such as:

- Pre-stressed concrete
- Ready-mix concrete
- High temperatures
- Waterproofing concrete

The product improves the effectiveness of the water content of a concrete mix by reducing surface tension. It is particularly

Specification Compliance

- EN 934-2 T10.
- ASTM C 494: Type D.
- EN 480-10
- EN 480-12.
- ASTM D 2111.

Packaging

20 liter jenkins, 210 liter drums, 1000 liters Bulk Tanks.

Product Properties

Consistency	Liquid
Color	Dark brown
Specific Gravity according to ASTM D 2111 (g/cm³) @25° C	1.185±0.02
pH	>6
Main action	Water reduction & Retarding of initial hydration; retention of workability.
Collateral action	Set retarding/water reducing/plasticizing admixtures
Classification according to EN 934-2	Set retarding/water reducing/plasticizing admixtures, T10
Classification according to ASTM C494	Type D
Water reduction	almost 20% according to EN 934-2
Chlorides soluble in water according to EN 480-10 (%)	≤ 0.1 (absent according to EN 934-1)
Alkali content (Na₂O equivalent) according to EN 480-12 (%)	< 55 g
Nitrate content	Nil

Shelf Life

X-Mix R2 has a minimum shelf life of 12 months under shaded area. Must be protected from direct sunlight and frost.

Dosage

Dosage is 0.3 - 1.2 Kg/100kg of cement, 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).

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 R2 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.

Overdosing

When accidental overdosing occurs will result in:

- Increase in workability.
- Initial and final set retarding.
- Increase in air-entrainment.

APPLICATION PROCEDURE

Add X-Mix R2 into the mixer after the other ingredients (water, cement, aggregates). X-Mix R2 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 R2 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. The resultant properties of concrete containing more than one admixture should be assessed by trial mixes.

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 (ATSSOs) 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 ATSSOs.

Datasheet Validity

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NCC

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Quality Statement

All Products manufactured by NCC X-CALIBUR or imported from X-CALIBUR companies world-wide are manufactured to procedures certified to conform the quality, environment, systems described in the ISO 14001:2004. ISO 9001:2000.



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