

Technical Datasheet

X-Mix IWA

integral waterproofing admixture.

Product Description

X-Mix IWA is integral waterproofing admixture is based on a formulated blend of plasticisers. It is supplied as a brown liquid, which instantly disperses in water.

Advantages

- slightly improves workability without increased water content.
- Improves water tightness.
- Improves workability retention.
- Minimizes the risk of segregation and bleeding and assists in the production of a dense, close textured surface.
- Improving durability (chloride ingress, sulfate resistance).
- Non-toxic.
- Chloride free.

Uses

X-Mix IWA is suitable for use in water-retaining structures such as :

- Sewage works.
- Canals.
- Artificial lake.
- Reservoirs and dams.

Specification Compliance

- EN 934-2 T9.
- ASTM C 494: Type S.
- EN 480-10.
- EN 480-12.
- ASTM D 2111.

Packaging

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

Shelf Life

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

Product Properties

Consistency	Liquid
Color	Dark brown
Specific Gravity according to ASTM D 2111 (g/cm³) @25° C	1.095±0.02
p^H	>6
Main action	Water resistance
Collateral action	Retarding of hydration when used in high dosages
Classification according to EN 934-2	Water resisting admixtures, T9
Classification according to ASTM C494	Type S
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

Dosage

The optimum dosage of X-Mix IWA to meet specific requirements should always be determined by trials using the materials and conditions that will be experienced in use. This allows the optimization of admixture dosage and mix design and provides a complete assessment of the mix.

The normal recommended dosage is 0.6 Kg /100 kg of cement, including any pozzolanic materials and cement replacements.

The overdose will result in an increase in retardation as compared to that normally obtained at the intended dosage. Provided that adequate curing is maintained, the ultimate strength of the concrete will not be impaired by increased retardation.

Dispensing

The correct quantity of X-Mix IWA should be measured by means of a recommended dispenser. The admixture should then be added to the concrete with the mixing water to obtain the best results. Contact the NCC X- Calibur Technical Service Department for advice regarding suitable equipment and its installation.

Overdosing

An overdose of double the intended dose of X-Mix IWA may result in increased retardation and workability.

APPLICATION PROCEDURE

Add X-Mix IWA into the mixer after the other ingredients (water, cement, aggregates). X-Mix IWA 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 IWA is compatible with other NCC X-Calibur admixtures used in the same concrete mix. All admixtures should be added to the mix separately and must not be mixed together prior to addition. The resultant properties of mixes containing more than one admixture should be assessed by the trial mix procedure recommended on this data sheet.

X-Mix IWA is suitable for use with all types of Portland cements including S.R.C. and cement replacement materials such as PFA and micro-silica.

Typical performance example

Many variables in concreting materials and conditions can affect the selection and use of an admixture. Trials should be carried out using relevant materials and conditions in order to determine the optimum mix design and admixture dosage to meet specific requirements.

Example: Initial surface absorption to BS 1881 Part 5 on 5:1 sand: cement mortar after 28 days.

Mix	Dosage kg	W:C Ratio	ISAT value, ml/m ² /s 10 minutes test
Control	0	0.60	0.48
X-Mix IWA	2.0	0.56	0.13

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.

Limitations

The use of X-Mix IWA will not make poor quality concrete waterproof. Good concrete practice must be followed at all times.

Adequate water stops must be provided between lifts of concrete and floor bays.

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 the products as it does not have control over the installation or end use of the products. Any suspected defects must be reported to X-Calibur in writing within five working days of being detected. NCC X-Calibur Construction Chemistry Inc. **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 Inc. shall not be liable for damages of any sort including remote or consequential damages, down time, or delay.

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NCC

X-CALIBUR
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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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