NCC X-CALIBUR CONSTRUCTION CHEMISTRY

Technical Data Sheet

X-Mix WPL

High performance permeability reducer & Induced corrosion of Reinforcing steel in concrete

Product Description

X-Mix WPL is a chloride free permeability reducing admixture & induced corrosion of Reinforcing steel in concrete based on a formulated blend of dispersant. It is supplied as a white solution which instantly disperses in water.

The dispersants in X-Mix WPL improve the effectiveness of water in the concrete mix, enabling desired levels of workability to be obtained with lower water contents. This produces a mix with a reduced water/cement ratio and therefore reduced permeability.

Advantages:

- Provides integral protection, ensuring reduced permeability throughout the concrete.
- Integral protection is maintained even if surface damage occurs, unlike applied surface films or coatings
- Bitumen free.
- Lower water/cement ratio improves compressive strength at same workability.
- Fully compatible with NCC X-Calibur surface coatings and finishes.

Uses

Can be used solely or with X-Mix waterproofing admixtures for waterproof, structural and precast concrete.

Properties

Appearance	White solution Specific
gravity	Typically **1.00±0.03** at 20°C
Chloride content	Nil to BS 5075

Specification Compliance

- EN 934-2 T 9.
- ASTM C 494: Type S.

Packaging

200 liter drums and bulk supply.

Dosage

The optimum dosage of X-Mix WPL 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 0.4 to 2.0 liter per 100 kg ofcement.

Effects of overdosing

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

Instructions for use

Compatibility

X-Mix WPL 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 premixed 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 WPL is suitable for use with all types of Portland cements, SRC cements and cement replacement materials such as PFA, GGBFS and micro silica.

The use of a combination of admixtures in the same concrete mix and or cement replacements may alter the setting time. Trials should always be conducted to determine such setting times.

Dispensing

The correct quantity of X-Mix WPL should be measuredby 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 adviceregarding suitable equipment and its installation.

Curing

As with all structural concrete, good curing practice should be maintained, particularly in situations where an overdose has occurred. Water spray, wet hessian or a X-Cure spray applied curing membrane should be used.

Shelf life
X-Mix WPL has a minimum shelf life of 12 months if the temperature is kept within the range of 2°C to 50°C. Contact the X-Calibur Technical Service Department for advice should the temperature of the product fall outside this range.

Clean Up
Spillages of X-Mix WPL should be absorbed onto sand, earth or vermiculite and transferred to suitable containers. Hose down remnants with large quantities of water.

The disposal of excess or waste material should be carried out in accordance with local legislation under the guidance of the local waste regulatory authority.

Limitations
The use of X-Mix WPL will not make poor qualityconcrete waterproof.
Good concrete practice must be followed at all times. Well graded aggregates must be used and a minimum cement content of 300 kg/m^3 is recommended.
Adequate water bars 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 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 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 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 havethe 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 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 Systems Inc. shall not be liable for damages of any sort including remote or consequential damages, down time, or delay.

Edition: 2026