

Technical Datasheet

Xtreme WR 250 Pave

A new generation polycarboxylate-based, High range water reducing superplasticizers with zero energy system.

Product Description

Xtreme WR 250 Pave is a state-of-the-art, third-generation superplasticizers developed using advanced polycarboxylic ether polymer technology. This innovative admixture also serves as a highly effective clay expansion inhibitor, addressing the issue of clay swelling in strata formations. Designed to prevent clogging and minimize reservoir damage, Xtreme WR 250 Pave achieves this by exchanging polymer ions and blocking the diffusion double-layer effect of clay, providing exceptional protection against clay expansion in concrete applications.

Xtreme WR 250 Pave effectively prevents clay expansion and greatly reduces slump loss in sand and gravel aggregates that contain clay, ensuring the production of consistent, high-quality concrete mixes. It minimizes the adsorption of mud and stone powder on polycarboxylate superplasticizers molecules, enhancing the mix's cohesiveness. This improves the coating of sand and gravel aggregates while increasing fluidity, making the concrete simpler to handle and finish.

Advantages

- Exceptional Anti-Clay Effectiveness.
- Minimizes mud and stone powder adsorption on polycarboxylate superplasticizers molecules.
- Improved Water-Reduction Capacity.
- Provides outstanding cement dispersion.
- Superior Slump-Retention Ability.
- Enhanced Concrete Workability.
- Makes concrete easier to place and finish.
- Cost-Effective Solution.
- Reduces the required dosage of polycarboxylate superplasticizers and cementitious materials in concrete.

Shelf Life

Xtreme WR 250 Pave has a minimum shelf life of 12 months under shaded area. Must be protected from direct sunlight and frost.

Dosage

For paving concrete: 0.4 to 2.50 liter/ 100 Kg of total cementitious material @ 25° C.

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

Product Properties

Consistency	Liquid
Color	Pale Brown
Specific Gravity according to ASTM D 2111 (g/cm³) @ 25° C	1.097 ±0.02
pH	3-7
Main action	Water reduction & Retarding of initial hydration; retention of workability.
Collateral action	HighRange Water-Reducing /Super plasticizing Admixture
Classification according to EN934-2	high range water reducing/ super plasticizing admixtures, T 11.1 / 11.2
Classification according to ASTM C494	Type G
Classification according to ASTM C1017	Type II
Water reduction	≥12 % according to EN 934-2 to almost 40%
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

Specification Compliance

- EN 934-2 T 11.1 / 11.2.
- ASTM C 494: Type G.
- EN 480-10.
- EN 480-12.
- ASTM D 2111.

Packaging

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

Dispensing

Xtreme WR 250 Pave 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.

APPLICATION PROCEDURE

Add Xtreme WR 250 Pave into the mixer after the other ingredients (water, cement, aggregates). Xtreme WR 250 Pave 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 (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

Xtreme WR 250 Pave is not compatible with all admixtures of X-MIX series of type F & G & D.

And recommended to ask before use Xtreme WR 250 Pave with any type of admixture. 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 (ATsOs) are permitted to change any of the information in this data sheet or to provide written recommendations concerning the use of this product.

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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.

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Edition:2026

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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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