

Technical Datasheet

Xtreme WR 350 Pave

A new generation polycarboxylate-based, very high range water reducing superplasticizers with zero energy system

Product Description

Xtreme WR 350 Pave is an advanced, third-generation superplasticizers, engineered with cutting-edge blended polycarboxylic ether polymer technology. This next-generation admixture also functions as a high-efficiency clay expansion inhibitor, tackling the challenges of clay expansion in strata formations. Specifically formulated to prevent formation clogging and reduce reservoir damage, Xtreme WR 350 Pave works by exchanging polymer ions and inhibiting the diffusion double-layer effect of clay, offering superior protection against clay swelling in concrete applications.

Xtreme WR 350 Pave effectively inhibits clay expansion and significantly minimizes slump loss in sand and gravel aggregates containing clay, ensuring consistent, high-quality concrete mixtures.

It reduces the adsorption of mud and stone powder on the blended polycarboxylate superplasticizers molecules, enhancing cohesiveness, improving the encapsulation of sand-gravel aggregates, and increasing fluidity, making the concrete easier to place and finish.

Advantages

- Superior Anti-Clay Performance.
- Reduces the adsorption of mud and stone powder on polycarboxylate superplasticizers molecules
- Enhanced Water-Reduction Properties.
- Offers excellent dispersion to cement.
- Excellent Slump-Retention Capability.
- Improved Concrete Workability.
- making the concrete easier to place and finish
- Cost Efficiency.
- Reduce the dosage of polycarboxylate superplasticizers and cementitious materials in concrete.

Shelf Life

Xtreme WR 350 Pave has a minimum shelf life of 12 months under shaded area. Must be protected from direct sunlight and frost.

Dosage

For paving strength concrete: 0.3 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	1.120 ±0.02
pH	3-7
Main action	Water reduction & Retarding of initial hydration; retention of workability.
Collateral action	High Range Water-Reducing /Super plasticizing Admixture
Classification according to EN 934-2	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 45%
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 350 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 350 Pave into the mixer after the other ingredients (water, cement, aggregates). Xtreme WR 350 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 350 Pave is not compatible with all admixtures of X-MIX series of type F & G & D.

And recommended to ask before use Xtreme WR 350 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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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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