

## Technical Datasheet

# Xtreme WR 200 Pave

A new generation polycarboxylate-based, ultra range water reducing superplasticizers with the Zero Energy System

### Product Description

**Xtreme WR 200 Pave** is a cutting-edge, third-generation superplasticizers developed using advanced polycarboxylic ether polymer technology. This next-generation admixture transforms the cement hydration process through rapid adsorption onto cement particles, ensuring efficient dispersion. Its innovative molecular design maximizes the surface area of cement grains, leading to accelerated heat development during hydration and quicker formation of hydration products. The result is significantly enhanced early-age strength, making Xtreme WR 200 Pave a top choice for high-performance concrete applications.

Engineered for precast concrete production, Xtreme WR 200 Pave delivers fluid consistency, outstanding workability, and resistance to segregation, all while maintaining a low water-cement ratio. Its self-compacting properties enable effortless placement, even in densely reinforced areas, eliminating the need for vibration. This makes it ideal for complex and intricate precast projects.

Xtreme WR 200 Pave is a core component of our **Zero Energy System**, an innovative solution that combines the capabilities of Xtreme WR 200 Pave with Rheodynamic concrete technology. This system revolutionizes the production process for precast manufacturers and road paving projects by maximizing efficiency, significantly reducing energy consumption, and enhancing overall product quality. With the Zero Energy System, you can streamline operations, cut costs, and create a more sustainable working environment—all while delivering superior precast concrete solutions.

### Advantages

- Improved Workability and Flowability.
- High Early Strength and Durability over Time.
- Energy Efficiency with a Zero-Energy System.
- Reduced Environmental Footprint.
- Optimized Curing Processes, Minimizing Both Time and Temperature.

### Shelf Life

Xtreme WR 200 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: 0.25 to 2.00 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

<b>Consistency</b>	Liquid
<b>Color</b>	Clear - Pale Yellow
<b>Specific Gravity according to ASTM D 2111 (g/cm<sup>3</sup>) @ 25° C</b>	1.05 ±0.02
<b>pH</b>	3-7
<b>Main action</b>	Water reduction & Retarding of initial hydration; retention of workability.
<b>Collateral action</b>	High Range Water-Reducing /Super plasticizing Admixture
<b>Classification according to EN 934-2</b>	high range water reducing/ super plasticizing admixtures, T 11.1 / 11.2
<b>Classification according to ASTM C494</b>	Type G
<b>Classification according to ASTM C1017</b>	Type II
<b>Water reduction</b>	≥12 % according to EN 934-2 to almost 50%
<b>Chlorides soluble in water according to EN 480-10 (%)</b>	≤ 0.1 (absent according to EN 934-1)
<b>Alkali content (Na<sub>2</sub>O equivalent) according to EN 480-12 (%)</b>	< 55 g
<b>Nitrate content</b>	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 200 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 200 Pave into the mixer after the other ingredients (water, cement, aggregates). Xtreme WR 200 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 200 Pave is not compatible with all admixtures of X-MIX series of type F & G & D. And recommended to ask before use Xtreme WR 200 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](http://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](http://www.ncc.com.eg) for a full list of NCC X-Calibur ATSSOs.

## 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](http://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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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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