PLASTOL ULTRA 209
HIGH RANGE WATER REDUCING ADMIXTURE

DESCRIPTION

PLASTOL ULTRA 209 high range water reducing admixture employs the latest advancements in polycarboxylate technology and is formulated to meet the demands of the precast / pre-stressed concrete industry. PLASTOL ULTRA 209 maximizes cement efficiency, maintains consistent air contents, and has excellent set/strength gain characteristics. PLASTOL ULTRA 209 also improves concrete flow, finishing, and formed surface appearance. It provides compressive and flexural strength gains that can lower cement requirements and extend the use of supplementary cementitious materials. PLASTOL ULTRA 209 contains no added chlorides or chemicals known to promote the corrosion of steel.

PRIMARY APPLICATIONS

- Precast / pre-stressed concrete
- Self-Consolidating Concrete (SCC)
- High slump, flowable concrete
- Low water to cement ratio concrete
- High early strength concrete
- Ready-mix concrete
- Flatwork and mass concrete
- Pervious concrete
- Lowers number of rejected concrete loads
- Quicker stripping times
- Aids in concrete placement and reduces labor cost
- Improved finishability

FEATURES/BENEFITS

- Superior slump gain
- Consistent control of air content
- Improved cement hydration
- Low dosage, high efficiency
- Higher early and ultimate strengths
- Lowering number of rejected concrete loads
- Quicker stripping times
- Aids in concrete placement and reduces labor cost
- Improved finishability

TECHNICAL INFORMATION

Performance Data:
The following test results were achieved using typical ASTM C 494 mix design requirements, 517 lb/yd³ (307 kg/m³) cement content and similar (± 0.5)% air content. These results were obtained under laboratory conditions with materials and mix designs meeting the specifications of ASTM C 494. Changes in materials and mix designs can affect the dosage response of PLASTOL ULTRA 209.

![Plastol Ultra 209 Compressive Strength Data (psi)](chart1)

![Plastol Ultra 209 Set Time Results (hr:min)](chart2)
**Packaging**

PLASTOL ULTRA 209 is packaged in bulk, 275 gal (1041 L) totes, 55 gal (208 L) drums and 5 gal (18.9 L) pails.

**Shelf Life**

1 year in original, unopened container.

**Specifications/Compliances**

- Fully complies with the requirements of ASTM C 494, Types A & F admixtures.
- Complies with the requirements of AASHTO M 194.

**Directions for Use**

PLASTOL ULTRA 209 has a recommended dosage range of 2 to 12 oz per 100 lbs (130 to 780 mL per 100 kg) of cementitious material. PLASTOL ULTRA 209 can provide excellent performance for most applications at dosage rates of 2 to 7 oz per 100 lbs (130 to 460 mL per 100 kg) of cementitious material. For SCC concrete or high performance mixtures dosage rates of 7 to 12 oz per 100 lbs (460 to 780 mL per 100 kg) of cementitious material can be used. Dosage recommendations depend on the characteristics of the materials being used in the mix design. Higher dosages are acceptable with prior testing and confirmation of the desired performance with specific materials used.

For any concrete application including Self-Consolidating Concrete (SCC), the dosage of PLASTOL ULTRA 209 will vary depending on the mix design, local materials, and individual needs of the concrete producer. Trial mixes should be run to verify plastic and hardened performance with local materials. If the material gradations are not optimum for SCC, a viscosity modifier may be used to improve the quality of the mix. Please consult a local Euclid Chemical Sales Professional for trial mixtures and dosage recommendations.

PLASTOL ULTRA 209 can be added to the initial batch water or directly on the freshly batched concrete and mixed for approximately 5 minutes or 70 revolutions. However, better results have been observed batching directly on the freshly batched concrete.

It should not come into contact with dry cement or other admixtures until mixed thoroughly with the concrete batch. PLASTOL ULTRA 209 is compatible with other Euclid Chemical admixtures including air-entraining agents, accelerators, most water reducers, retarders, shrinkage reducers, corrosion inhibitors, viscosity modifiers, and microsilica; however, each material should be added to the concrete separately.

**Precautions / Limitations**

- Care should be taken to maintain Plastol ULTRA 209 above freezing; however, freezing and subsequent thawing will not harm the material if thoroughly agitated. Never agitate with air or an air lance, use a circulation pump or small paddle mixer instead.
- If re-dosing Plastol ULTRA 209 at the job site, it is recommended that the air content of the concrete mix is checked to conform to job specifications.
- In all cases, consult the Safety Data Sheet before use.

WARRANTY: The Euclid Chemical Company (“Euclid”) solely and expressly warrants that its products shall be free from defects in materials and workmanship for one (1) year from the date of purchase. Unless authorized in writing by an officer of Euclid, no other representations or statements made by Euclid or its representatives, in writing or orally, shall alter this warranty. EUCLID MAKES NO WARRANTIES, IMPLIED OR OTHERWISE, AS TO THE MERCHANTABILITY OR FITNESS FOR ORDINARY OR PARTICULAR PURPOSES OF ITS PRODUCTS AND EXCLUDES THE SAME. If any Euclid product fails to conform with this warranty, Euclid will replace the product at no cost to Buyer. Replacement of any product shall be the sole and exclusive remedy available and Buyer shall have no claim for incidental or consequential damages. Any warranty claim must be made within one (1) year from the date of the claimed breach. Euclid does not authorize anyone on its behalf to make any written or oral statements which in any way alter Euclid’s installation information or instructions in its product literature or on its packaging labels. Any installation of Euclid products which fails to conform with such installation information or instructions shall void this warranty. Product demonstrations, if any, are done for illustrative purposes only and do not constitute a warranty or warranty alteration of any kind. Buyer shall be solely responsible for determining the suitability of Euclid’s products for the Buyer’s intended purposes.