



e⁵ DRA BETA
Water reducer and retardant admixture

Description

e⁵ DRA BETA is a water reducer and retardant, formulated with high technology and environmentally friendly dispersants, specially designed to break the flocculating effect of cement particles, as they come in contact with water.

Designed to overcome set delays with cements that contain pozzolanic additions and with traditional lignosulfonate admixtures. It allows water reductions greater than 5 % and widely complies with ASTM C 494 Type A admixtures.

Benefits

- It increases the mechanical strength of concrete.
- Improves the rheological properties of concrete.
- It reduces the permeability of concrete.
- Reduces the water/binding materials ratio.
- It allows adequate transportation of fresh concretes mixed in warm climates.
- It increases the durability of concrete.
- Designed for cements with pozzolanic additions that delay setting times with conventional admixtures.
- It reduces the manufacturing cost per m³ of concrete.
- Highly compatible with the **GUltra** reactive ash technology, in the production of higher durability hybrid concretes with important economic benefits.

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Technical information

Specific gravity 1.20

Physical appearance: dark brown color

Presentation

19 L pail, 200 L drum and bulk

Useful life: 12 months in its original container

Principal applications

- Durable hybrid concretes with **GUltra** technology
- Conventional concretes
- Pumpable concretes
- Structural concretes
- Concretes placed under water in combination with our admixture **e⁵ AWA (Anti Washout Admixture)** and **e⁵ SP 2000**

Directions for use

Results will be improved by performing lab tests with the job materials. This will allow making the necessary adjustments in the concrete mix, such as: appearance, workability, consistency, air content, yield, setting times and the admixture dosage.

Then, it is important to repeat these tests under real job conditions (humidity, temperature, time required to transport fresh concrete, etc.), for the purpose of making the final adjustments.

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Load all the mix design materials: aggregates, cement and 80 % of the mix water. Mix these ingredients during 2 minutes. Add the established volume of admixture with the remaining 20 % of the mix water and finish mixing. This will allow the calcium sulfate to form ettringite with the cement's tricalcium aluminate, thus improving the admixture's performance.

Dosages can vary from 4 to 9 mL/kg of cement. This will depend on the concrete's mix design. An overdose, above the established dosage, can result in a delay in the cement's speed of hydration.




When used in combination with an integral waterproofer, it is necessary to check the air content and setting times in the concrete mix.

Perform tests in combination with other admixtures. This allows checking for any synergies in the admixture's behavior; specially air content and setting times.

It is compatible with all admixtures. In the event of important variations in materials (change of aggregates, cement, etc.), it is necessary to make the required adjustments in the dosage used.

Consult with your **Element5-GU** Ultra Integral Solutions Technical Advisor for the preparation of durable hybrid concretes, along with an important economic benefit.

Cautions

-  Do not allow the product to freeze.
-  Always keep the product in its original container.
-  Never add the admixture with the aggregates or to the cement without its previous initial hydration, as these actions will negatively impact the admixture's efficiency.

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