



# ULTRA RETARDER 310

## Water Reducing-Set Retarder Admixture

**ULTRA RETARDER 310** is a solution of a sodium lignosulfonate and is completely free of any calcium chloride. It is a water reducing, set retarding admixture for concrete. It provides increased working time, better workability, higher durability and reduced shrinkage and permeability.

### PRIMARY APPLICATIONS

- Structural concrete
- Bridge decks
- Highway concrete
- Lightweight and expansive concretes
- Warm weather applications

### ADVANTAGES

- Provides easier handling and finishing.
- Elimination of cold joints between subsequent pours in mass or structural concrete
- Water reduction significantly improves compressive strengths at all ages and enhances durability.
- Minimised transportation delay problems maintains placeability and reduces the risk of pump blockage.
- Slight air entrainment improves cohesion in mixes with poorly graded sands or a lack of fine material, minimizing bleed and segregation.
- Allows specified strength grades to be met at reduced cement content or increased workability.
- Aids in placing bridge deck concrete where it is desirable to load the entire section prior to the concrete achieving initial set.
- Improves pump ability of concrete.
- Considerably reduces permeability.
- Reduces placing problems in hot weather concreting by

- Improving workability and Workability retention.
- Improves trowel ability and Surface finish.

### Specifications/Compliances

- ULTRA RETARDER 310 meets the requirements of ASTM C-494, Type D Admixture.
- ULTRA RETARDER 310 meets the requirements of AASHTOM -194.

**Shelf life** is 1 year in original, unopened package.

### Typical dosage

Trail mix should be used to maximize the benefits.

The normal dosage range is from 0.8 to 1.0 litres/100 kg of cementitious material

### Directions For Use

ULTRA RETARDER 310 is dispensed into any part of the concrete materials except cement, but preferably into the water.

### PACKAGING

ULTRA RETARDER 310 is packaged in bulk, 210 liter, 30 liter

### Precautions/ Limitations

- Will freeze at 26°F (-3°C), but
- Will return to its original state after thawing and thorough mixing.
- ULTRA RETARDER 310 is compatible with other admixtures; however, each admixture should be added to the mix separately.

### Physical & Chemical Properties

Appearance Brown Liquid  
Specific gravity 1.150 @20°C  
Chloride contents Nil  
Air Entrainment: Less than 3%  
PH 7-8

**WARRANTY:** The Ultra Chemicals, LLC. ("Ultra ") solely and expressly warrants that its products shall be free from defects in materials and workmanship for six (6) months from the date of purchase. Unless authorized in writing by an officer of Ultra, no other representations or statements made by Ultra or its representatives, in writing or orally, shall alter this warranty. ULTRA 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 Ultra product fails to conform to this warranty, Ultra 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. Ultra does not authorize anyone on its behalf to make any written or oral statements which in any way alter Ultra's installation information or instructions in its product literature or on its packaging labels. Any installation of Ultra products which fails to conform to 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 Ultra's products for the Buyer's intended purposes.

### Storage:

Avoid to place direct to sun light and always store in shady areas.

### ISO Certification:

Our production facility at Pakistan is ISO 9001:2008 ISO 14001:2004 by BUREAU VERITAS and UKAS Management

**Note:** Dosage rate may be changed as per requirements of concrete mix, on consultation of Ultra technical staff. Over dosage can cause retardation.