

WRDA[®] 60

Water-reducing admixture ASTM C494 Type A and D

Product Description

WRDA[®]60 is a polymer based aqueous solution of complex organic compounds. WRDA[®]60 is a ready-to-use low viscosity liquid which is produced under rigorous quality control to provide uniform, predictable performance. WRDA[®] 60 does not contain added calcium chloride and weighs approximately 9.59 lbs/gal (1.15 kg/L).

Product Advantages

- Consistent water reduction and set times
- Improves performance concrete containing supplementary cementitious materials
- Produces concrete that is more workable, easy to place and finish
- High compressive and flexural strengths

Uses

WRDA[®]60 produces concrete with lower water content (typically 8%–10% water reduction), improved workability and higher strengths. It is used in ready-mix block and concrete product plants.

Advantages

WRDA[®]60 offers significant advantages over single component water reducers. Water reduction and setting times are more consistent due to the polymer contents. WRDA[®]60 performs especially well in warm and hot weather climates to maintain slump and workability in high ambient temperatures.

The use of WRDA[®]60 produces a plastic concrete that is more workable, easier to place and more finishable than plain concrete. In the hardened state WRDA[®]60 concrete has higher compressive strengths at all ages than untreated concrete.

Finishability

WRDA[®]60 produces workable concrete with improved finishability and workability. The influence of WRDA[®]60 on lean mixes will be particularly noticeable. Floating and troweling, by machine or by hand, imparts a smooth, close surface tolerance.

Addition Rates

WRDA[®]60 provides water reduction and minimal retardation, through mild and extended retardation, as job site conditions require. As addition rates are increased, set times will be extended proportionately.

The addition rate of WRDA[®]60 is 3 to 10 fl oz/ 100 lbs (195 to 625 mL/100 kg) cementitious material. Pretesting is recommended to determine the optimum addition rate. Optimum addition rate is determined by other concrete mixture components, job site conditions and desired performance characteristics.

Compatibility with Other Admixtures and Batch Sequencing

WRDA[®]60 is compatible with most GCP admixtures as long as they are added separately to the concrete mix, usually through the water holding tank discharge line. In general, it is recommended that WRDA[®]60 be added to the concrete mix near the end of the batch sequence for optimum performance. Different sequencing may be used if local testing shows better performance. Please see GCP Technical Bulletin TB-0110, *Admixture Dispenser Discharge Line Location and Sequencing for Concrete Batching Operations* for further recommendations.

Pretesting of the concrete mix should be performed before use, as conditions and materials change in order to assure compatibility, and to optimize dosage rates, addition times in the batch sequencing and concrete performance. For concrete that requires air entrainment, the use of an ASTM C260 air-entraining agent (such as Daravair[®] or Darex[®] product lines) is recommended to provide suitable air void parameters for freeze-thaw resistance. Due to a synergistic effect of WRDA[®]60, the quantity of air-entraining agent added to WRDA[®]60 may be reduced by 25 to 50%. Please consult your GCP Applied Technologies representative for guidance.

Packaging & Handling

WRDA[®]60 is available in bulk, delivered by metered tank trucks, totes and drums.

WRDA[®]60 will freeze at about 28°F (-2°C) but will return to full strength after thawing and thorough mechanical agitation.

Dispensing Equipment

A complete line of accurate, automatic dispensing equipment is available. WRDA[®]60 may be introduced into the mix on the sand or in the mix water.

Specifications

Concrete shall be designed in accordance with *Standard Recommended Practice for Selecting Proportions for Concrete*, ACI 211.

The water-reducing admixture shall be WRDA[®]60 as manufactured by GCP Applied Technologies, or approved equal. The admixture shall not contain calcium chloride. It shall meet the requirements of *Specification for Chemical Admixtures for Concrete* ASTM Designation C494 as a Type D admixture when used at an addition rate of 3 to 10 fl oz/100 lbs (190 to 625 mL/100 kg) of cementitious material. WRDA[®]60 is NSF Std. 61 certified when used at a maximum addition rate of 6 fl oz/100 lbs (390 mL/ 100 kg) of cementitious material.

The admixture shall be delivered as a ready-to-use liquid product and shall require no mixing at the batching plant or job site.

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