WRDA® PAVE 17

Water-reducing and retarding admixture for paving concrete ASTM C494 Type A and D

Product Description

WRDA®PAVE 17 is an aqueous solution of modified lignosulfonates containing a catalyst which promotes more complete hydration of portland cement. It does not contain any added calcium chloride. WRDA®PAVE 17 is manufactured under rigid control which provides uniform, predictable performance. It is supplied as a dark brown, low viscosity liquid, ready-to-use as received. One gallon weighs approximately 10 lbs (1.2 kg/L).

Product Advantages

- Superior water reduction and set times
- Consistent set time
- 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®PAVE 17 makes a workable mix and yields a stronger, less permeable and more durable concrete for use in pavingrelated concrete.

Performance

WRDA®PAVE 17 is a chemical admixture meeting the requirements of *Specification for Chemical Admixtures for Concrete*, ASTM Designation: C 494 as a Type A and D admixture.

As a dispersing agent, WRDA®PAVE 17 lessens the natural interparticle attraction between cement grains in water. It does this by colloidal action, by absorption on the cement particles thus reducing their tendency to clump together and makes the mix more workable with less water. As a cement catalyst, WRDA®PAVE 17 affects a more complete hydration of the cement, beginning immediately after the cement and water come together at the lower additions of WRDA®PAVE 17 or immediately after a period of designed and controlled hydration at the higher additions. WRDA®PAVE 17 increases the gel content of the concrete, the paste or binder that “glues” the concrete aggregates together. The increased gel content adds to the water retention and internal cohesiveness of the mix, reducing bleeding and segregation as it increases workability and placeability.

Addition Rates

The addition rate of WRDA®PAVE 17 to be used will range 3 to 10 fl oz/100 lbs (195 to 652 mL/100 kg) of cementitious materials if local testing shows acceptable performance.

In some cases it may be necessary to slightly modify the addition rate due to variations in cement, aggregate or other job conditions.

Compatibility with Other Admixtures

In general, it is recommended that WRDA®PAVE 17 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 ensure 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®, DAREX®or TERAPAVE®product lines) is recommended to provide suitable air void parameters for freeze-thaw resistance. Due to a synergistic effect of WRDA®PAVE 17, the quantity of air entraining admixtures added to WRDA®PAVE 17 admixture concrete may be reduced by 20%. Please consult your GCP Applied Technologies representative for guidance.

Packaging and Handling

WRDA®PAVE 17 is available in bulk, delivered by metered tank trucks, totes and drums.

WRDA®PAVE 17 will freeze at about -2 °C (28 °F) but will return to full strength after thawing and thorough agitation.

Dispensing Equipment

A complete line of accurate, automatic dispensing equipment is available. WRDA®PAVE 17 may be added to the concrete mix on the sand or in the 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®PAVE 17 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 C 494 as a Type A and D admixture when used at an addition rate of 195 to 652 mL/100 kg (3 to 10 fl oz/100 lbs) of cement. Certification of compliance shall be made available on request.

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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ca.gcpat.com/solutions/products/mira-mid-range-water-reducers/wrda-pave-17