MIRA® 62

Water-reducing and mid-range water-reducing admixture ASTM C494 Type A and F

Product Description

MIRA®62 is a linear dose water-reducing and mid-range water-reducing admixture manufactured under rigorous quality control to ensure uniform, predictable performance. MIRA®62 does not contain added calcium chloride. MIRA® 62 weighs approximately 8.8 lbs/gal (1.06 kg/L).

The superior dispersion capability of MIRA®62 produces concrete with significantly improved early and ultimate compressive strength while maintaining near-neutral set times even in lower temperatures. The linear dose water reduction capability of MIRA®62 also produces less permeable, more durable concrete.

Product Advantages

MIRA®62 offers significant advantages over conventional water reducers:

- Linear water reduction capability. The neutral set capability of MIRA® 62 throughout a wide range of dosage rates allows the producer to have "peace of mind" by knowing they can utilize a single admixture to meet all their water reducer and mid-range water reducer needs and requirements. The versatile water reduction capability of MIRA® 62 may be used to produce high quality, workable concrete over a wide range of water/cement ratios.
- Superior strength performance. The superior water reduction properties (up to 15%) and excellent dispersion characteristics allow the production of lower water to cement ratio concrete with more complete cement hydration. This combined effect results in increased compressive and flexural strengths at all ages.
- Near-Neutral set times. With MIRA® 62 concrete, near-neutral setting times can be maintained over a wide range of dosage rates and temperature conditions.
- Superior workability and finishability. The exceptional water-reducing performance allows for concrete production at 3 to 8 in. (75 to 200 mm) slumps, providing smooth flowing concrete with improved placement properties. Formulated with proven finishing enhancing components, MIRA® 62 controls bleeding while bringing the mortar to the surface. Floating and troweling, by machine or by hand, easily imparts a smooth, close tolerance surface with less machine time and labor
- Improved performance for use with pozzolans. MIRA® 62 improves the quality of lean, harsh concrete mixes and concrete that contains fly ash (both Class C and Class F) and GGBF slag, delivering superior workability, finishability and pumpability. The neutral set characteristics allow incremental cement replacement with pozzolans.

Uses

MIRA®62 is recommended for use with a wide range of concrete slumps including 3 to 8 in. (75 to 200 mm) where superior finishing characteristics is desired, particularly in commercial and residential flatwork and formed concrete applications.

MIRA®62 may be used in a wide variety of applications including ready mix, job site and concrete paving plants for normal and lightweight concrete, and in block and precast products.

Finishability

Finishers have stated that the cement paste or mortar in MIRA 62 concrete has improved trowelability. Floating or troweling by hand or machine imparts a smooth, close tolerance surface.

Addition Rates

Addition rate may be varied to achieve the desired water reduction and set time. Typically, addition rates range from 2.5–15 fl oz/100 lbs (160–1000 mL/ 100 kg) of cementitious materials. Addition rates may vary depending on materials, job conditions and desired performance characteristics. Please consult your GCP Applied Technologies representative for information and assistance.

Compatibility with Other Admixtures and Batch Sequencing

MIRA®62 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. However MIRA®62 is not recommended for use in concrete containing naphthalenebased admixtures including DARACEM®19 and DARACEM®100, and melamine-based admixtures including DARACEM®65. In general, it is recommended that MIRA®62 be added to the concrete mix near the end of the batch sequence for optimum performance. Please see GCP Technical Bulletin TB-0110,*Admixture Dispenser Discharge Line Location and Sequencing for Concrete Batching Operations* for further recommendations. For optimum performance, different sequencing may be used if local testing shows better performance.

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. Please consult your GCP Applied Technologies representative for guidance.

Packaging & Handling

MIRA®62 is available in bulk, delivered by metered tank trucks, or in totes and drums.

MIRA®62 will begin to freeze at approximately 25°F (-4°C) but will return to full strength after thawing and thorough agitation. In storage and for proper dispensing, the temperature of MIRA®62 should be maintained above 32°F (0°C).

Dispensing Equipment

A complete line of accurate, automatic dispensing equipment is available.

Specifications

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

The mid-range water-reducing admixture shall be MIRA®62 as manufactured by GCP Applied Technologies, or its equivalent. It shall be manufactured to meet all the requirements of *Specification for Chemical Admixtures for Concrete*, ASTM Designation C494 as a Type A and Type F admixture.

The admixture shall be delivered as a ready-to use, liquid product and shall not require mixing at the batching plant or job site. The admixture shall not contain added calcium chloride. It shall be used in strict accordance with manufacturers' recommendations.

We hope the information here will be helpful. It is based on data and knowledge considered to be true and accurate, and is offered for consideration, investigation and verification by the user, but we do not warrant the results to be obtained. Please read all statements, recommendations, and suggestions in conjunction with our conditions of sale, which apply to all goods supplied by us. No statement, recommendation, or suggestion is intended for any use that would infringe any patent, copyright, or other third party right.

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