

V-MAR[®] F100 Data Sheet

Concrete rheology-modifying admixture ASTM C494 Type S

Product Description

V-MAR[®]F100 is a high efficiency, rheology-modifying liquid admixture. The use of V-MAR[®]F100 admixture imparts lubricity to the concrete resulting in increased productivity and concrete with improved surface texture.

V-MAR[®]F100 admixture is supplied as a ready to use liquid that weighs approximately 8.5 lbs/gal (1.02 kg/L). V-MAR[®]F100 admixture does not contain intentionally added chlorides.

Uses

V-MAR[®]F100 is a multi-purpose admixture that reduces friction within the concrete mixture, resulting in a highly workable mixture.

V-MAR[®]F100 can be used for conventional slump concrete and SCC mixtures. It is particularly effective in zero slump and low slump applications such as concrete pipe, concrete extrusion, concrete paving, slip formed concrete and roller-compacted concrete.

Advantages

Concrete produced with V-MAR[®]F100 offers the following advantages:

- Increased productivity through higher throughput
- Concrete moves easier and faster through machinery
- Improved paste creaminess and enhanced finishability
- Concrete consolidates with reduced vibration
- Provides superior water tolerance to the concrete making it less susceptible to normal manufacturing moisture fluctuations
- Facilitates the use of angular aggregates and/or manufactured sands in concrete
- Produces finishes with a noticeable reduction in surface defects
- Concrete requires less cement to close surfaces, resulting in lower material costs

Product Advantages

- Modifies concrete rheological properties for improved workability
- Produces concrete mixes that are cohesive without being sticky
- Facilitates concrete extrusion
- Enhanced concrete surface appearance
- Faster concrete discharge rates

Addition Rates

V-MAR[®]F100 is an easy to dispense liquid admixture. Dosage rates can be adjusted to meet a wide spectrum of concrete performance requirements. Addition rates for V-MAR[®]F100 can vary with the type of application, but will normally range from 3–12 fl oz/100 lbs (195–780 mL/100 kg). In most cases, the addition of 5–8 fl oz/ 100 lbs (325–520 mL/ 100 kg) of cementitious material will be sufficient. Please consult your GCP Applied Technologies representative for assistance with developing mix designs.

Compatibility with Other Admixtures and Batch Sequencing

V-MAR[®]F100 is compatible with most GCP admixtures as long as they are added separately to the concrete mix. V-MAR[®]F100 should be added to the concrete mix as early as possible in 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 prior to use and as job conditions and materials change, in order to ensure compatibility with other admixtures, and to optimize dosage rates and addition times in the batch sequencing, in order to optimize concrete performance.

For concrete that requires air entrainment, the use of an ASTM C260 air-entraining agent is recommended to provide suitable air void parameters for freeze-thaw resistance. Please consult your GCP Applied Technologies representative for guidance.

Packaging & Handling

V-MAR[®]F100 is available in bulk, in totes, and drums. V-MAR[®]F100 will freeze at approximately 28°F (-2°C) but will return to full functionality after thawing and thorough mechanical agitation.

Dispensing Equipment

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

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