

# ADVA<sup>®</sup> 390

High-range water-reducing admixture ASTM C494 Type A and F

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## Product Description

ADVA<sup>®</sup>390 admixture is a high efficiency, low addition rate polycarboxylate-based high-range water reducer designed for the production of a wide range of concrete mixes, from conventional to Self-Consolidating Concrete. It is designed to impart extreme workability without segregation to the concrete.

The product meets the requirements of ASTM C494 as a Type A water reducer and Type F high-range water reducer.

It is supplied as a ready-to-use liquid that weighs approximately 9.0 lbs/gal (1.1 kg/L) and does not contain intentionally added chlorides

## Product Advantages

- Produces concrete with high levels of workability without segregation
- Provides significantly higher strengths and normal set time
- Excellent concrete rheology and handling properties
- Provides improved finishability and surface finishes
- Excellent entrained air quality
- Provides standard water reduction at normal addition rates and significant water reduction at higher addition rates

## Uses

ADVA<sup>®</sup>390 admixture is, typically, a plant-added superplasticizer that is formulated to impart improved workability to the concrete and to achieve high early compressive strength. It may also be used for the production of Self-Consolidating Concrete (SCC).

The product may be used to produce concrete with very low water/ cementitious ratios while maintaining normal levels of workability.

## Addition Rates

ADVA<sup>®</sup>390 high-range water reducer is an easy to dispense liquid admixture. Dosage rates can be adjusted to meet a wide spectrum of concrete performance requirements. Addition rates can vary from 2 to 10 fl oz/100 lbs (130 to 650 mL/ 100 kg) with the type of application, but will typically range from 3 to 6 fl oz/100 lbs (200 to 390 mL/100 kg) of cementitious.

Mix proportions, cementitious content, aggregate gradations and ambient conditions will affect ADVA® 390 high-range water reducer dosage requirements. If materials or conditions require using more than the recommended addition rates, or when developing mix designs for Self-Consolidating Concrete please consult your GCP representative for more information and assistance.

## Compatibility with Other Admixtures and Batch Sequencing

ADVA®390 high-range water reducer is compatible with most GCP admixtures as long as they are added separately to the concrete mix. However, it is not recommended for use in concrete containing naphthalene-based admixtures including DARACEM®19 and DARACEM®100. In general, it is recommended that the product 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. ADVA®390 high-range water reducer should not come in contact with any other admixture before or during batching.

Pretesting of the concrete mix should be performed before use and as conditions and materials change in order to assure compatibility with other admixtures, 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 representative for guidance.

## Packaging & Handling

ADVA®390 high-range water reducer is a liquid available in bulk, delivered by metered trucks, in 275 gal (1040 L) totes, and 55 gal (210 L) drums. It will freeze at approximately 32 °F (0 °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.

[ca.gcpat.com](http://ca.gcpat.com) | North America customer service: 1-877-4AD-MIX (1-877-423-6491)

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