

ADVA[®] 390

Retarding polymer-based superplasticiser – for workability retention enhancement

Product Description

ADVA[®]390 is a new superplasticiser based on the latest polymer technology. ADVA 390 superplasticiser is designed to impart high workability, extended slump life, and increased strength performance and enhanced durability to concrete. ADVA 390 contains no added chloride and complies with BS5075: Part 3 and complies with BS EN 934-2:2001. One litre weighs approximately 1.035kg ± 0.02kg.

Dispersion

Based on new comb polymer technology, ADVA 390 is a superior dispersing admixture having a marked capacity to disperse the cement agglomerates normally found in a cement-water suspension. Unlike conventional superplasticisers, which partially rely on electrostatic charge repulsive forces, ADVA 390 efficiently disperses cement particles using a powerful steric repulsion model. This allows for lower dosages and better control.

Product Advantages

- Specially formulated to extend concrete slump life
- Highly workable or low water-cement ratio concrete with little or no retardation
- Easily added with the concrete mix water for rapid batching

Applications

ADVA 390 produces very low water-cement ratio concrete with extreme workability characteristics for excellent workability retention. The addition of ADVA 390 will also fluidise concrete making it ideal for high pumping concrete or other applications where high slumps are desired.

Dispensing Equipment

Please contact your local GCP representative for further information regarding the dispensing equipment for this product.

Packaging

ADVA 390 is available in bulk and in 205L drums. ADVA 390 contains no flammable ingredients.

It will begin to freeze at approximately 0°C, but will return to full strength after thawing and thorough agitation.

In storage, and for proper dispensing, ADVA 390 should be maintained at temperatures above 0°C.

Health and Safety

See ADVA 390 Material Safety Data Sheet or consult GCP Applied Technologies



Addition Rates

Depending on the application, dosage rates can range from 800 to 1,400mL / 100kg of cementitious material. However, in most superplasticiser applications, 800 to 1,200mL / 100kg of cementitious material will be sufficient. For best results, ADVA 390 should be added with the mix water. At a given water-cement ratio, the slump required for placement can be controlled by varying the addition rate. Should job site conditions require using more than recommended addition rates, please consult your GCP representative.

Compatibility with Other Admixtures

In concrete containing ADVA 390 the use of an air-entraining agent (such as Daravair[®] or Darex[®] AEA[®]) is recommended to provide suitable air void parameters for resistance against freeze-thaw attack. Due to synergistic effects between ADVA 390 and air-entraining agents, the quantity of air-entraining admixture added to concrete containing ADVA 390 may be reduced. Please consult your GCP representative for dosage guidance.

Most water reducers or water-reducing retarders are compatible with ADVA 390 as long as they are added separately to the concrete.

Caution should be exercised when using ADVA 390 with a retarder, as excessive retardation can occur if the admixture dosages are too high. Pre-testing of the concrete should be performed to optimise dosages and addition times of these admixtures. The admixtures should not be in contact with each other before they enter the concrete.

ADVA 390 is not compatible with Naphthalene Sulfonate Formaldehyde Condensate or similar type product.

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Last Updated: 2022-01-28

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