

# ADVA<sup>®</sup> 146

New generation admixture with superior slump boosting effect

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## Product Description

ADVA<sup>®</sup> 146 is a high performance, new generation, mid-range water reducer based on comb polymer technology. It is a ready-to-use liquid admixture with superior dispersing capacity for the cement particles in the concrete mix.

This capability exceeds that of normal water-reducing admixtures, resulting in lower dosages and better control. ADVA 146 has a better performance in terms of strength development at early stage within the first 24 hours.

ADVA 146 contains no added chloride. One litre weighs approximately 1.070kg ± 0.02kg.

## Dispersion

Based on new comb polymer technology, ADVA 146 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 146 efficiently disperses cement particles using a powerful steric repulsion model. This allows for lower dosages and better control.

## Product Advantages

- Provides extended workability with minimum impact to set times
- Finishes easily without stickiness, tearing or spotty set characteristics
- Less susceptible to segregation and bleeding
- Highly efficient, producing desired slump concrete with no loss in strength
- Quick and easy application to the concrete mix water for rapid batching
- Provides superior slump boosting effect



## Applications

ADVA 146 produces very low water-cement ratio concrete with extreme workability characteristics.

The addition of ADVA 146 will also fluidise concrete making it ideal for high pumping concrete or other applications where high slumps are desired.

## Addition Rates

Addition rates of ADVA 146 can vary with type of application. Depending on the application, dosage rates can range from 250 to 1200ml / 100kg cementitious material. However, in most applications, 300 to 1,000ml / 100kg of cementitious material will be sufficient. For best results, ADVA 146 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 local GCP representative.

## Compatibility with Other Admixtures

In concrete containing ADVA 146 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 146 and air-entraining agents, the quantity of air-entraining admixture added to concrete containing ADVA 146 may be reduced. Please consult your local GCP representative for dosage guidance.

Except naphthalene-based products, most water reducers or water-reducing retarders are compatible with ADVA 146 as long as they are added separately to the concrete.

Caution should be exercised when using ADVA 146 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.

## Dispensing Equipment

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

## Packaging and Storage

ADVA 146 is available in bulk and 205L drums. ADVA 146 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 146 should be maintained at temperatures above 0 °C. ADVA 146 should be stored under shelter and away from direct sunlight. Shelf life is six months from the date of delivery.

## Health and Safety

See ADVA 146 Safety Data Sheet or consult GCP Applied Technologies.

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