

ADVA[®] Cast 537

High early strength, polymer-based superplasticiser for precast concrete

Product Description

ADVA[®]Cast 537 is a polymer-based high range water-reducing admixture that is specially designed for producing superior high early strength concrete with excellent slump retention properties in precast applications.

ADVA Cast 537 contains no added chloride. It is formulated to comply with specifications for chemical admixtures for concrete: ASTM C 494 and Type F; BS 5075: Part 3: 1985.

One litre weighs approximately 1.07kg ± 0.02kg.

Dispersion

ADVA Cast 537 is a superior dispersing admixture, having a marked capacity to disperse cement agglomerates normally found in a cement-water suspension. The capability of ADVA Cast 537 exceeds that of normal water-reducing admixtures (Type WR) and High Range Water Reducers (Type HWR), resulting in lower dosages and better performance.

Product Advantages

- Superior early strength enhancement
- High workability
- Superior slump retention
- Superior surface finish
- Superior water reduction
- Optimise precast concrete production

Uses

ADVA Cast 537 produces concrete with high early strength for precast concrete elements, while at the same time achieving high workability for easy and fast placement of concrete. It also allows concrete to be produced with very low water-cement ratios in low to high slump ranges with superior slump retention.

Addition Rates

Addition rates of ADVA Cast 537 can vary with type of applications, but will normally range from 400 to 2,000mL / 100kg of cementitious material. In most instances, the addition of 600 to 1,600mL / 100kg of cementitious material will be sufficient. Should conditions require using more than recommended addition rates, please consult your local GCP representative.

Compatibility

ADVA Cast 537 is compatible with most water-reducing admixtures as well as specialty admixtures like accelerators, DCI®Corrosion Inhibitor, Eclipse®Shrinkage-Reducing Admixture and V-MAR®Rheology-Modifying Admixture. ADVA Cast 537 should not be used together with Naphthalene-based superplasticiser. Trial mixes need to be carried out to determine the compatibility between ADVA Cast 537 and other admixtures before use. All admixtures should be separately added to the concrete. Pretesting of the concrete should be performed to optimise dosages and addition sequence of these admixtures.

Health and Safety

Please refer to ADVA Cast 537 Material Safety Data Sheet or consult GCP Applied Technologies.



Advantages

Superior Early Strength Enhancement

ADVA Cast 537 accelerates cement hydration at a very early stage. Together with the very efficient dispersion effect, ADVA Cast 537 achieves very high early strength for the production of precast structural elements.

High Workability and Superior Slump Retention

ADVA Cast 537 is ideal for precast applications, where high early strength is desired, and where high workability with superior slump retention will aid faster placement and improved mix consolidation.

Superior Surface Finish

ADVA Cast 537 produces concrete with superior surface finish, without stickiness, tearing or spotty set characteristics.

Superior Water Reduction

With up to 40% water reduction possible, ADVA Cast 537 is highly effective in low water-cement concrete, producing high strength and high early strength concrete.

Optimise Precast Concrete Production

The accelerated set times of ADVA Cast 537 may reduce or eliminate the need for heat curing to achieve high early strength concrete. The earlier removal of forms leads to reduced cycle times, faster mould turnaround, reduced total costs and increased productivity.

Dispensing Equipment

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

Packaging

ADVA Cast 537 is available in 205L drums and in bulk.

ADVA Cast 537 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 Cast 537 should be maintained at temperatures above 0°C.

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