

ADVA[®] 512PP

High early strength polycarboxylic superplasticiser for precast concrete

Product Description

ADVA[®]512PP is a polycarboxylic, high range water-reducing admixture that is specially designed for producing superior high early strength concrete in precast applications. ADVA 512PP contains no added chloride. It is formulated to comply with specifications for chemical admixtures for concrete: AS 1478 as a Type HWR. One litre weighs approximately 1.04kg ± 0.02kg.

Dispersion

ADVA 512PP is a superior dispersing admixture, having a marked capacity to disperse cement agglomerates normally found in a cement-water suspension. The capability of ADVA 512PP exceeds that of normal water-reducing admixtures (Type WR) and high range water reducers (Type HWR), resulting in lower dosages and better control.

Product Advantages

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

Uses

ADVA 512PP produces concrete with high early strength for precast structural elements, while at the same time achieving high workability for easy and fast placement and consolidation. It also allows concrete to be produced with very low water-cement ratios in low to high slump ranges.

Addition Rates

Addition rates of ADVA 512PP can vary with type of applications, but will normally range from 700 to 2,500mL / 100kg of cementitious material. In most instances, the addition of 800 to 1,000mL / 100kg of cementitious material will be sufficient. Should conditions require using more than recommended addition rates, please consult your local GCP representative.

Compatibility

ADVA 512PP is compatible with most water-reducing admixtures as well as specialty admixtures like accelerators, DCI[®] corrosion inhibitor, ECLIPSE[®] shrinkage reducing admixture and V-MAR[®]4 rheology modifying admixture. However, it cannot be used in conjunction with DAREX[®] Super 20, DARACEM[®] or Daracem 19A. 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.

Dispensing Equipment

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

Health and Safety

Please refer to ADVA 512PP Material Safety Data Sheet or consult GCP Applied Technologies.



Advantages

Superior Early Strength Enhancement

ADVA 512PP accelerates cement hydration at a very early stage. Together with the very efficient dispersion effect, ADVA 512PP achieves very high early strength for the production of precast structural elements.

High Workability

ADVA 512PP is ideal for precast applications, where high early strength is desired, and where high workability will aid faster placement and improved mix consolidation.

Superior Surface

Finish ADVA 512PP produces concrete with superior surface finish, without stickiness, tearing or spotty set characteristics.

Superior Water-Reduction

With up to 40% water reduction possible, ADVA 512PP is highly effective in low water-cement concrete, producing high early strength concrete.

Optimise Precast Concrete Production

The accelerated set times of ADVA 512PP may 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 costs and increased productivity.

Packaging

ADVA 512PP is available in bulk. ADVA 512PP 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 512PP should be maintained at temperatures above 0°C.

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