

ADVA[®] Cast 630

High early strength superplasticiser

Product Description

ADVA[®] Cast 630 is a polycarboxylic high range water-reducing admixture that is specially designed for producing superior high early strength concrete in precast applications. ADVA Cast 630 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 1.060kg ± 0.02kg.

Product Advantages

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

Advantages

Extended Slump Retention

ADVA Cast 630 has been developed to extend the slump life of concrete. This extended slump life will be very important for concrete placed in large precast units or in high temperature regions.

Superior Early Strength Enhancement

ADVA Cast 630 accelerates cement hydration at a very early stage. Together with the very efficient dispersion effect, ADVA Cast 630 achieves very high early strength for the production of precast structural elements.

High Workability

ADVA Cast 630 is ideal for precast applications, where high early strength is desired, and where high workability will aid faster placement and improved mix consolidation. Ideally suited for self-compacting concrete (SCC) or super workable concrete (SWC) applications.

Superior Surface Finish

ADVA Cast 630 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 630 is highly effective in low water-cement concrete, producing high early strength concrete.

Dispensing Equipment

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

Packaging

ADVA Cast 630 is available in bulk.

ADVA Cast 630 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 630 should be maintained at temperatures above 0°C.

Dispersion

ADVA Cast 630 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 630 exceeds that of normal water-reducing admixtures (Type WR) and High Range Water Reducers (Type HWR), resulting in lower dosages and better control.

Uses

ADVA Cast 630 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.

Optimise Precast Concrete Production

The accelerated set times of ADVA Cast 630 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.

Addition Rates

Addition rates of ADVA Cast 630 can vary with type of applications, but will normally range from 300 to 1,000mL / 100kg of cementitious material. In most instances, the addition of 400 to 800mL / 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 630 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. However, it cannot be used in conjunction with DAREX[®] Super 20 or DARACEM[®]. 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 630 Material Safety Data Sheet or consult GCP Applied Technologies.

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GCP Applied Technologies Inc., 2325 Lakeview Parkway, Alpharetta, GA 30009, USA

GCP Australia Pty. Ltd., 14 Colebard Street West, Archerfield, Brisbane, Queensland 4108, Australia

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