

Super Cast 500EB

High early strength polymer-based superplasticiser for precast concrete

Product Description

Super Cast 500EB is a polymer-based high range water-reducing admixture that is specially designed for producing superior high early strength concrete in precast applications. Super Cast 500EB 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 $1.04\text{kg} \pm 0.02\text{kg}$.

Dispersion

Super Cast 500EB is a superior dispersing admixture, having a marked capacity to disperse cement agglomerates normally found in a cement-water suspension. The capability of Super Cast 500EB 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 surface finish
- Superior water reduction
- Optimise precast concrete production

Uses

Super Cast 500EB 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.

Addition Rates

Addition rates of Super Cast 500EB 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

Super Cast 500EB 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. Super Cast 500EB should not be used together with Naphthalene-based superplasticiser. Trial mixes need to be carried out to determine the compatibility between Super Cast 500EB and other admixtures before use. All admixtures should be separately added to the concrete. Pre-testing of the concrete should be performed to optimise dosages and addition sequence of these admixtures.

Packaging

Super Cast 500EB is available in 205L pails and in bulk.

Super Cast 500EB 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, Super Cast 500EB should be maintained at temperatures above 0°C.



Advantages

Superior Early Strength Enhancement

Super Cast 500EB accelerates cement hydration at a very early stage. Together with the very efficient dispersion effect, Super Cast 500EB achieves very high early strength for the production of precast structural elements.

High Workability Super

Cast 500EB 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

Super Cast 500EB produces concrete with superior surface finish, without stickiness, tearing or spotty set characteristics.

Superior Water Reduction

With up to 40% water reduction possible, Super Cast 500EB 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 Super Cast 500EB 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.

Health and Safety

Please refer to Super Cast 500EB Material Safety Data Sheet or consult GCP Applied Technologies.

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