

DAREX[®] S20

Superplasticiser for the production of high workability concrete

Product Description

DAREX[®]S20 is a high range water reducer based on naphthalene sulfonate. It is a low viscosity liquid which has been formulated by the manufacturer for use as received. Darex S20 contains no added chloride. Darex S20 is formulated to comply with the following chemical admixture specifications for concrete: BS 5075: Part 3: 1985. One litre weighs approximately 1.22kg ± 0.02kg.

Dispersion

Darex S20 is a superior dispersing admixture having a marked capacity to disperse the cement agglomerates normally found in a cement-water suspension. The capability of Darex S20, in this respect, exceeds that of normal water-reducing admixtures.

Product Advantages

- High slump, flowable concrete at no loss in strength.
- Low water-cement ratio concrete and therefore, high strengths.
- In prestress/precast work, can be used to substantially reduce or eliminate the high energy requirements of external heat for accelerated curing.
- Can be used with Type I cement to substitute for normal concrete produced with Type III cement to achieve early release strengths.
- Exhibits no significant segregation even at high slump. •Aids in rapid discharge of concrete from truck mixers, thereby reducing time and improving mixer utilisation.

Applications

Darex S20 produces concrete with extremely workable characteristics referred to as high slump, flowing concrete. Darex S20 also allows concrete to be produced with very low watercement ratios at low or normal slumps.

Darex S20 is ideal for use in prestress, precast, bridge deck or any concrete where it is desired to keep the water-cement ratio to a minimum and still achieve the degree of workability necessary to provide easy placement and consolidation. Darex S20 will also fluidise concrete making it ideal for tremie concreting or other applications where high slumps are desired.

Dispensing Equipment

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

Packaging

Darex S20 is available in bulk and in 205L drums. Darex S20 contains no flammable ingredients. It will begin to freeze at approximately 0°C, but will return to full strength after thawing and agitation.

In storage and for proper dispensing, Darex S20 should be maintained at temperatures above 0°C.



Addition Rates

Addition rates of Darex S20 can vary with type of application, but will normally range from 400 to 2,500mL / 100kg of cementitious material. In most instances the addition of 400 to 2,000mL / 100kg of cementitious material will be sufficient. At a given watercement 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 GCP representative.

Compatibility with Other Admixtures

In concrete containing Darex S20, 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.

Most water reducers or water-reducing retarders are compatible with Darex S20 as long as they are separately added to the concrete. Pretesting of the concrete should be performed to optimise dosages and addition times of these admixtures. Caution should be exercised when using Darex S20 together with a retarder, as excessive retardation can occur if the admixture dosages are too high. The admixtures should not be in contact with each other before they enter the concrete.

Health and Safety

See Darex S20 Material Safety Data Sheet or consult GCP Applied Technologies.

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