

Superplasticising admixture

Uses

- To produce pumpable concrete with replacement of cement (upto 70%) and Ordinary Portland cement.
- To produce high strength, high grade concrete by substantial reduction in water resulting in low permeability and high early strength.
- To produce high workability concrete requiring little or no vibration during placing.

Advantages

- Improved workability - Easier, quicker placing and compaction.
- Increased strength - Provides high early strength for precast concrete if water reduction is taken advantage of.
- Improved quality - Denser, close textured concrete with reduced porosity and hence more durable.
- Higher cohesion - Risk of segregation and bleeding minimised; thus aids pumping of concrete
- Chloride free - Safe in prestressed concrete and with sulphate resisting cements and marine aggregates.

Standards compliance

Conplast SP432BS complies with IS:9103:2000 and BS:5075 Part 3 and ASTM-C-494 Type 'G' as a high range water reducing admixture.

Description

Conplast SP432BS is based on Sulphonated Napthalene Polymers and is supplied as a brown liquid instantly dispersible in water.

Conplast SP432BS has been specially formulated to give high water reductions upto 25% without loss of workability or to produce high quality concrete of reduced permeability.

Properties

Specific gravity	1.21 to 1.23 at 30°C*
Chloride content	Nil to IS:456 and BS: 5075 *
Air entrainment	Approx. 1% additional air is entrained

* The uniformity parameters like specific gravity, pH, chloride content etc. will vary for specific customer requirements and mix design. Please refer our MTC issued for specific product configuration for measuring our product parameters that will be constantly and consistently administered.

Compatibility : Can be used with all types of cements except high alumina cement. Conplast SP432BS is compatible with other types of Fosroc admixtures when added separately to the mix. Site trials should be carried out to optimise dosages

Workability : Can be used to produce flowing concrete that requires no compaction. Some minor adjustments may be required to produce high workable mix without segregation.

Cohesion : Cohesion is improved due to dispersion of cement particles thus minimising segregation and improving surface finish.

Compressive strength : Early strength is increased upto 40 to 50% if water reduction is taken advantage of. Generally, there is improvement in strength upto 20% depending upon W/C ratio and other mix parameters.

Durability : Reduction in W/C ratio enables increase in density and impermeability thus enhancing durability of concrete

Application instructions

Dosage

The optimum dosage is best determined by site trials with the concrete mix which enables the effects of workability, strength gain or cement reduction to be measured. Site trials with Conplast SP432BS should always be compared with mix containing no admixture. As a guide, the rate of addition is generally in the range of 0.6 - 2.0 litres /100 kg cement.

Over dosing

An over dose of double the recommended amount of Conplast SP432BS, will result in very high workability and some retardation of setting time will occur. However, the ultimate compressive strength will not be impaired.

Dispensing

The measured quantity of Conplast SP432BS should be added along with the gauging water. For best results, add Conplast SP432BS in the last phase after prewetting the mix with 80% of the total water required.

Mix design

Fosroc has a dedicated advisory service on Concrete Mix Design and can be contacted if assistance is required.

Conplast SP432BS

Estimating

Packing

Conplast SP432BS is supplied in 5,20,50 and 200 litre drums.

Storage

Conplast SP432BS has a minimum shelf life of 12 months when stored under normal temperatures. It should be protected from extreme temperatures and preferably stored in shade

Precautions

Health and Safety instructions

Conplast SP432BS is nontoxic. Any splashes on the skin should be washed immediately with water. Splashes to the eyes should be washed immediately with water and medical advice should be sought

Fire

Conplast SP432BS is non flammable

Important note :

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products whether or not in accordance with any advice, specification, recommendation or information given by it.



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