Conplast SP430 G8 DIS

constructive solutions

Water reducing and retarding type concrete admixture.

Uses

- To produce pumpable concrete
- To produce high performance concrete by reducing water resulting low permeability and high strength.
- To produce high performance concrete requiring little vibration during placing.

Advantages

- Improved workability - Easier, quicker placing and compaction.
- Increased strength - Provides high early strength for precast concrete with the advantage of higher water reduction ability.
- 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 SP430 G8 DIS complies with IS:9103:1999 and BS:5075 Part 3 .Conplast SP430 G8 DIS conforms to ASTM-C-494 Type 'G' and Type 'F' depending on the dosages used.

Description

Conplast SP430 G8 DIS is based on Sulphonated Napthalene Polymers and supplied as a brown liquid instantly dispersible in water.

Conplast SP430 G8 DIS has been specially formulated to give high water reductions upto 20% without loss of workability or to produce high quality concrete of reduced permeability.

Properties

Specific gravity	1.15 to 1.20 *
Chloride content	Nil to IS:456 *
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 SP430 G8 DIS 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 20% 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 SP430 G8 DIS should always be compared with mix containing no admixture. As a guide, the rate of addition is generally in the range of 0.5 - 2.0 litres /100 kg cement.

Over dosing

An over dose of double the recommended amount of Conplast SP430 G8 DIS 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 SP430 G8 DIS should be added along with the gauging water. For best results, add Conplast SP430 G8 DIS superplasticiser 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.

Estimating

Packing

Conplast SP430 G8 DIS is supplied in 200 litre and 250kg.

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Typical results

M-30 mix, Sand Zone 2 (40%), Coarse aggregate - 20 - 5mm (60%)
Cement : L&T OPC

Test	Cement content kg/m³	Dosage of Conplast SP430 G8 DIS L/50 kg of cement	W/C ratio	Slump (mm)	Compressive strength (N/mm²) 1 day	7days	28 days
Control	375	Nil	0.57	55	10	26	40
Workability increased	375	0.5L	0.57	140	11	30	43
Strength increased	375	0.5L	0.46	52	16	40	48

Storage

Conplast SP430 G8 DIS 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 SP430 G8 DIS is non-toxic. Any splashes on the skin should be washed immediately with water. Splashes on the eyes should be washed immediately with water and medical advice should be sought.

Fire

Conplast SP430 G8 DI is non flammable.

Additional information

The Fosroc range of associated products include high strength cementitious, epoxy grout, polyester resin based mortar for rapid presetting of steel shims to level or for direct bedding of small base plates; Resin anchoring systems for same day anchoring of bolts in drilled holes in concrete or rock. Also available a range of products for use in construction; viz., ad-mixtures, curing compounds, release agents, flooring systems and repair mortars.

Separate datasheets are available on these products.

BERGER
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Berger Fosroc Limited
Corporate Address:
'Berger House', House # 08, Road # 02, Sector # 03, Uttara Model Town, Dhaka 1230, Bangladesh.
telephone(Hunting) : +880248953665, **fax :** +880248951350,
e-mail : enquiry.bangladesh@bergerfosroc.com, **website** : www.bergerfosroc.com

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