



Superplasticising Admixture

Uses

- To produce pumpable concrete
- To produce concrete 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 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

Chemiko Plast SP301 complies with IS:9103 , BS:5075 and ASTM-C-494 Type 'G' . It also complies with IS : 2645

Description

Chemiko Plast SP301 is based on Sulphonated Napthalene Polymers and supplied as a brown liquid instantly dispersible in water.

Chemiko Plast SP301 has been specially formulated to give high water reductions without loss of workability or to produce high quality concrete of reduced permeability.

Technical Support

ATOZ Service Solution provides a technical advisory service for onsite assistance and advice on admixture selection, evaluation trials and dispensing equipment. Technical data and guidance can be provided for admixtures and other products for use with fresh and hardened concrete.

Properties

| | |
|------------------|-----------------------------|
| Specific gravity | 1.15 + 0.02 |
| Chloride content | Nil (As per BS 5075 part I) |
| Air entrainment | Negligible |

Compatibility : Can be used with all types of cements except high alumina cement. Chemiko Plast SP301 is compatible with other types of ATOZ Service Solution 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 : Chemiko Plast SP301 is primarily an efficient superplasticiser giving large increase in work-ability without significant changes in compressive strength . It may be used to produce substantial water reduction resulting in a considerable increase in compressive strength.

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 Chemiko Plast SP301 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 kg /100 kg of cementitious materials .

Over dosing

An over dose of double the recommended amount of Chemiko Plast SP301, 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 Chemiko Plast SP301 should be added along with the gauging water. For best results, add Chemiko Plast SP301 superplasticiser in the last phase after prewetting the mix with 80% of the total water required.

Mix design

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

DISCLAIMER

The above information and details herein are based on the tests conducted & experience on application and usage. The user is advised to carryout the test and take trials to satisfy on the suitability of the products and meeting his requirement considering the prevailing conditions prior to apply/ using it on larger area. As the conditions under which the products are used or transported are beyond our control. We would not hold ourselves responsible on its consequential nonperformance.



ESTIMATING

Packaging

Chemiko Plast SP301 is supplied in 200 litre and 250kg.

Storage

Chemiko Plast SP301 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

Chemiko Plast SP301 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

Chemiko Plast SP301 is non-flammable.

Additional information

The ATOZ Service Solution range of associated products include high strength cementitious, epoxy grout, polyester resin based mortar for rapid pre-setting 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., admixtures, curing compounds, release agents, flooring systems and repair mortars.

Separate datasheets are available on these products.

Important note

ATOZ Service Solution 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 ATOZ Service Solution 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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