

Product Description

La HyperCrete SC is a third generation superplasticizer for concrete and mortar. The unique mechanism of action of polycarboxylic ether present in La HyperCrete SC greatly enhances the effectiveness of cement dispersion and thereby reducing the amount of water required for mixing.

La HyperCrete SC is chloride-free and compatible with all types of cement.

At the very early stage of the mixing process, the PCs are adsorbed by the cement granules, increasing their negative charge, thus causing electrostatic dispersion. But then, the side chain linked to the polymer backbone generates a steric hindrance that greatly enhances the ability of cement grains to disperse and remain separate. Steric hindrance provides a physical barrier along with the electrostatic barrier between the cement particles, resulting in flowable concrete with great reduction in water content and long term dispensability.

Standard

Conforms to IS:9103-1999 (reaffirmed 2004), Edition 2.2 (2007 – 2008), ASTM C494, Type F & G

Uses

La HyperCrete SC facilitates extreme water reduction, excellent flowability with the same time optimal cohesion and highest self compacting behaviour.

La HyperCrete SC is used for the following types of concrete:

- Self compacting- Elimination of vibration and reduced labour cost in placing
- Concrete with high water reduction
- High strength concrete

Technical Properties

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|---------------------|---|
| Chemical Base | Aqueous solution of modified polycarboxylate |
| Form | Light Yellow Liquid |
| Specific Gravity | 1.08 ± 0.02 (at 27°C ± 3°C) |
| Setting & Hardening | Sets very early with moderate dosage. There may be retarding effect on the setting time with high dosage. |
| Chloride Content | NIL. |
| Air Entrainment | May increase very marginally in high dosage |
| Compatibility | Can be used with all types of Portland and Slag cements including Microsilica, fly ash, GGBFS |
| pH | 7±1 |

Advantages

La HyperCrete SC acts by different mechanisms. Through surface adsorption and sterical separation effect on the cement particles, in parallel to the hydration process, the following properties are obtained:

- Strong self compacting behaviour, therefore suitable for the production of self compacting concrete(S.C.C)
- Extremely high water reduction (resulting in high density and strengths)
- Excellent flowability(resulting in highly reduced placing and compacting efforts)
- Improved shrinkage and creep behaviour
- Reduced rate of carbonation of the concrete
- It does not contain chloride or other steel corrosion promoting ingredients. It may therefore be used without any restrictions for reinforced- and pre-stressed – concrete construction.

Consistency

La HyperCrete SC is formulated using new generation PCE and special additives for high retardation and excellent workability to avoid bleeding and segregation. It is manufactured under controlled environment and strict quality condition to produce a consistent product.

Dosage

The optimum dosage should be determined by site trial with the particular concrete mix. As a guide the rate of addition is generally in the range of 0.3-1.0% by weight of cement depending on the site conditions.. Arriving at right dosage depends on water cement ratio, cement content and other desired properties as per the site condition.

The plasticizing-cum-water reducing properties are improved if the admixture is added to moist concrete after adding 60-70% of mixing water. Addition of La HyperCrete SC to dry cement or aggregate is not recommended.

Caution: Over dosage of La HyperCrete SC may result into segregation/bleeding of mix, delayed initial/final set, increased plastic shrinkage, air entrainment, etc

Methods of Use

La HyperCrete SC is supplied in ready for use. For maximum dispersion throughout the mix, measured quantity of La HyperCrete SC should be added directly into the mixer at the same time as the mixing water. On no account should be added to the dry cement.

Package

La HyperCrete SC is supplied in 225kg carboys

Shelf Life

La HyperCrete SC has a shelf life of 18 months from the date of manufacture provided the temperature is within the range of 20°C-40°C. It is recommended that the drums to be stored in shade and cool place.

Health & Safety

La HyperCrete SC is non-toxic, non-flammable and splashes to the skin should be washed with copious amounts of water.

If contact with eyes occurs, wash well with water immediately and seek medical advice.

Warning

Although the technical details mentioned in the datasheet are recommended to the best of our experience & knowledge, information must be taken merely indications. Practical trials have to be conducted at site for arriving the optimum dosage. In every case, the user alone is fully responsible for any consequence deriving from the use of the product

Important: La Greens India Pvt. Ltd., products are guaranteed against defective materials and are sold subject to its standard terms and conditions of sale. It is the Customer's responsibility to satisfy themselves by checking with the Company whether the information is still current at the time of use. The customer must be satisfied that the product is suitable for the use intended. All products comply with the properties shown on current Technical Literatures. However, La Greens India does not warranty or guarantee the installation of the products as it does not have any control over installation or end use of the product. All information and particularly the recommendation relating to application and end use are given in good faith.



Smart Solutions for Sustainable Construction

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