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

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

At the very early stage of the mixing process, the PCEs 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 the reduction in water content and further results in high strength of the concrete.

La HyperCast SC facilitates extreme water reduction with the same time optimal cohesion. It's recommended specifically for precast concrete.

### Technical Properties

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

* The uniformity parameters like specific gravity, pH, chloride content etc. will vary for specific customer requirements and mix design. Please refer our MTC issued along with supply for specific details.

### 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 0.3-1.2% 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 HyperCast SC to dry cement or aggregate is not recommended.

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

### Advantages

- Increased durability
- Improved shrinkage and creep behaviour
- Reduced rate of carbonation
- 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.

### Features

La HyperCast SC is formulated using new generation PCE and special additives for high strength. It is manufactured under controlled environment and strict quality condition to produce a consistent product.
Health & Safety

La HyperCast 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.

Methods of Use

La HyperCast SC is supplied in ready for use. For maximum dispersion throughout the mix, measured quantity of La HyperCast 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 HyperCast SC is supplied in 225kg carboys

Shelf Life

La HyperCast 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.