KEM SUPLAST PCL-20
Concrete Super plasticizer / Retarder

Ref. CA/SP/V1-0813

Description
KEM SUPLAST PCL-20 is a high range water reducing & slump retaining concrete admixture, manufactured to comply to the IS 9103 and ASTM C 494 type A, Type B & Type D specifications. KEM SUPLAST PCL-20 is yellowish brown colored, ready to use liquid admixture formulated using polycarboxylate ether super plasticizers. KEM SUPLAST PCL 20 incorporates a new generation of highly powerful dispersant, which make the product possible to utilize the full potential of cement- water matrix at economical dosage.

Uses
Excellent dispersion resulting in High workability

- Increases early & ultimate strengths
- Concrete to be placed and compacted in congested reinforcements
- Reduced labour requirements.
- Increases durability & impermeability
- Improved surface finish

Advantages
- Precast / Pre-stressed Concrete
- High Strength Concrete
- High Performance Concrete
- Self Compacting Concrete
- Pumped concrete
- Increases cohesiveness & eliminates bleeding.

Typical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Yellowish brown liquid.</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.03 ± 0.02 @ 20°C</td>
</tr>
<tr>
<td>pH</td>
<td>Minimum 6</td>
</tr>
<tr>
<td>Chloride ion content</td>
<td>Nil to BS</td>
</tr>
<tr>
<td>Alkali content</td>
<td>&lt; 0.1%</td>
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</tbody>
</table>

Standards
ASTM C494 Types A,B & D
IS 9103: 1999

Direction for use
The required quantity of KEM SUPLAST PCL-20 is to be add inside the concrete batch mixer with gauging water.

The high dispersion property of KEM SUPLAST PCL-20 enables a saving in the quantity of cement used.

Dosage
KEM SUPLAST PCL-20 is dosed between 0.5% and 1.5% of cement by weight. However the dosage can be increased up to 2% with prior consultation with our technical service department.

To achieve the optimum dosage for effective performance, it is always recommended to carry out trial design mixes at site conditions.

Effects of Over Dosage
An over dose of double the maximum recommended dose of PCL-20 will result in very high workability, possible severe retardation and
seggregation. Otherwise the ultimate compressive strength of the concrete may not be impaired, if properly cured. The overdosing effect will be more severe when used with sulphate resisting cement.

**Compatibility**

KEM SUPLAST PCL-20 is compatible with OPC, PPC, Fly Ash.

**Corrosivity & Non-Corrosivity**

KEM SUPLAST PCL 20 admixture will neither initiate nor promote corrosion of reinforcing steel embedded in concrete, pre-stressed concrete or concrete placed on galvanized steel floor and roof systems. Neither calcium chloride nor any calcium chloride-based ingredients are used in the manufacture of KEM SUPLAST PCL 20 admixture.

In all concrete application, KEM SUPLAST PCL 20 mixture will conform to the most stringent or minimum chloride ion limits currently suggested by construction industry standards and practices.

**Workability**

Addition of KEM SUPLAST PCL-20 reduces the water demand of concrete and improves the concrete workability at fixed W/C ratio. When the W/C ratio is lowered, addition of KEM SUPLAST increases the strength of concrete.

PCL-20 maintains the original workability and

As a concrete retarder, KEM SUPLAST PCL-20 delays the cement hydration process resulting in better slump retention. This is of great importance especially in countries like India where the ambient and concrete temperatures are high.

**Packaging**

KEM Suplast PCL 20 is supplied in 250 liter drum.

**Storage and Shelf life**

KEM Suplast PCL20 must be stored in a place where temperature does not drop +5°C. Store under cover, out of direct sunlight & protect from extremes of temperature. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.

*Shelf life up to 12 months if stored according to manufacturers instructions in original unopened Drums.*

**Technical Service**

Chembond has established itself in various fields on the basis of its dependable technical service. For this purpose, we maintain a well equipped laboratory for research & quality assurance of all products. Our experienced personnel are always on call and would always be available for product demonstrations and product performance monitoring.

**Safety precautions**

KEM Suplast PCL 20 is non-toxic and non-flammable. However, any splashes on the human body, must be washed with plenty of water.

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**Limitation of Liability:**

This information is based on our current level of knowledge. It is given in a good faith but it is not intended to guarantee any particular properties. The users must satisfy themselves that there are no circumstances requiring additional information or precautions or he verification of details given herein.

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