

# KEM SUPLAST SPC 40

## Hyper Plasticizer Based on Modified Poly Carboxylic Ether (PCE)

Ref. CA/SP-V1-0613

### Description

KEM SUPLAST SPC 40 is a third generation high performance concrete hyper plasticizer, an opaque light brown colored solution of Poly Carboxylic Polymer. KEM SUPLAST SPC 40 disperses cement particles and fillers by electro static repulsion coupled with steric hindrance. Stabilizes the cement particle's capacity to disperse and separate, result in highly workable/flowable concrete with greatly reduced water content. KEM SUPLAST SPC 40 allows water reduction up to 40% while maintaining workability.

Thus with KEM SUPLAST SPC 40 we can produce concrete with high Early and ultimate strength with minimal voids and therefore optimum density. In applications where high final strengths are required for High Performance Concrete (HPC) or Self-Consolidability Concrete (SCC) the use of KEM SUPLAST SPC 40 is suggested.

### Uses

- To produce pumpable concrete
- To produce high strength, high grade concrete by substantial reduction in water resulting in low permeability and high early strength.
- To produce high workability concrete requiring little or no vibration during placing.
- Ready Mix and Pre-cast Concrete Industries where high durability and performance is required

### Advantages

- Easier, quicker for placing and compaction.
- Extremely high water reduction ( resulting in high density and strengths)
- Excelent flowability(resulting in highly reduced placing and compacting efforts)
- Reduced rate of carbonation of the concrete

- Denser, close textured concrete with reduced porosity and hence more durables. Suitable to produce concrete containing supplementary cementitious materials linke Fly Ash, Silica Fume and GGBS.

### Typical Properties

**Type** : Poly Carboxylic Ether

**Colour** : Light Brown

**Specific Gravity** : 1.10±0.02

**pH** : 6 – 7

**Chloride Content** : 0.05%

### Standards

KEM SUPLAST SPC 40 meets/exceeds the requirements as per ASTM – C494 Type- A & F.

### Direction for use

KEM SUPLAST SPC 40 is a ready to use admixture that is added to the concrete at the time of batching. The maximum effect is achieved when the KEM SUPLAST SPC 40 is added after the addition of 60 - 90% of the water. KEM SUPLAST SPC 40 must not be added to the dry materials.

Though mixing is essential & a minimum mixing cycle, after the addition of the KEM SUPLAST SPC 40, of 60 seconds for forced action mixture is recommended.

**Curing:** As with all structural concrete, normal curing methods apply.

**Cleaning:** Spillages of KEM SUPLAST SPC 40 can be removed with water.

### Dosage

Dosage is approximately 0.8% - 1.3%. To determine the optimum dosage lab trials are recommended.

### Compatibility

KEM SUPLAST SPC 40 is compatible with all portland cements that meet recognized international standards. KEM SUPLAST SPC 40 must not be used in conjunction with any other admixture. KEM SUPLAST SPC 40 is suitable for mixes containing

Microsilica

Pulverised Fuel Ash (P.F.A.)

Ground Granulated Blast Furnace Slag (G.G.B.F.S.)

## Packaging

KEM Suplast SPC 40 is available in 225 kg drums and in bulk tanks on request

## Storage and Shelf life

**Storage:** Keep away from direct sunlight and extreme heat

**Shelf life:** 12 months in the original un-opened packing.

## 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 SPC 40 is non toxic. Any splashes to the skin and eyes should be washed immediately with water and medical advice should be sought.

**Fire:** KEM Suplast SPC 40 is non flammable.

### 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 the verification of details given herein.