

SUNPLAST - PCE

New Generation Slump Retaining Concrete Superplasticizer

Sunplast PCE is a high performance (high strength and durability) super plasticizer for concrete based on a polycarboxylate ether polymer. It comprises of particles in the size range of 0.25 to 0.35 micrometers (μm) and is synthesized through nano-scale polymerization. It is a high range super plasticizer (water reduction up to 40% in control concrete) with superior cement dispersion ability to provide extremely high slump values, even to concrete mixtures made with water-to-cement ratio of less than 0.30.

It is highly dosage efficient – a much smaller dosage as compared to conventional super plasticizers is only sufficient. Imparts high flow ability to the mixture so as to fill the formwork under its own weight (self compacting ability) without any voids or segregation of aggregates. This self compacting concrete (SCC) maintains fluidity for longer periods (about 4 hours at 35 C because of the presence of SLCA). SLCA prevents slump losses by “parachute effect” of slow adsorption on Ettringite crystals formed at the beginning of cement hydration.

Sunplast PCE is especially recommended for Ready Mix Concrete production because of its very high slump retention characteristic imparted by SLCA. For long distance transportation in a tropical climate or when traffic delays are expected in the transportation of concrete from plant to site, a concrete plasticized by SUNPLAST PCE can retain smooth pump ability with minimal set retardation. Ready mixed concretes of moderate to very high strengths can be produced using this super plasticizer.

Sunplast PCE imparts high self-compaction or self-leveling, reduces shrinkage and creep, increases flexural strength, reduces carbonation, improves adhesion to re-enforcing and pre-stressing steel and develops early strength. It helps in producing a cohesive, smooth and fair faced concrete.

SPECIFICATIONS

PROPERTIES	PC 2550	PC 3050	PC 3550
Appearance	Amber Colour Liquid	Amber Colour Liquid	Amber Colour Liquid
Base	Polycarboxylate Ethers	Polycarboxylate Ethers	Polycarboxylate Ethers
Sp Gravity	1.060 \pm .01	1.065 \pm 0.01	1.070 \pm 0.01
ph	7 \pm 1	7 \pm 1	7 \pm 1
Chloride Content	Nil (BS: 5075)	Nil (BS: 5075)	Nil (BS: 5075)
Dry Content	18 \pm 1 %	20 \pm 1 %	25 \pm 1 %
Dosage	0.4 to 1.2 %	0.4 to 1.2 %	0.4 to 1.2 %
Packing	225 kg HDPE Drum or Bulk in Tanker loads.	230 kg HDPE Drum or Bulk in Tanker loads.	

USAGE: Sunplast PCE can be used with all types of OPC, composite cement (PSC and PPC), Silica Fume, Meta kaolin, Rice Husk Ash (RHA), Pulverized Fuel Ash (PFA) and Ground Granulated Blast Furnace Slag (GGBFS).

STANDARD: Conforms to ASTM C 494 Type B, Type D and Type G and complies with IS: 9103 -1999.

STORAGE: To be stored away from heat and frost.

225 kg HDPE drums or Bulk in Tanker loads.

SHELF LIFE: Best before 12 months from the date of manufacturer.

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SPECIFICATIONS

PROPERTIES	PC 4050	PC 5050	PC 6050
Appearance	Amber Colour Liquid	Amber Colour Liquid	Amber Colour Liquid
Base	Polycarboxylate Ethers	Polycarboxylate Ethers	Polycarboxylate Ethers
Sp Gravity	1.080 \pm .01	1.085 \pm 0.01	1.090 \pm 0.01
ph	7 \pm 1	7 \pm 1	7 \pm 1
Chloride Content	Nil (BS: 5075)	Nil (BS: 5075)	Nil (BS: 5075)
Dry Content	27 \pm 1 %	30 \pm 1 %	32 \pm 1 %
Dosage	0.3 to 1.0 %	0.3 to 1.0 %	0.2 to 0.8 %
Packing	230 kg HDPE Drum or Bulk in Tanker loads.		

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