

PC-E

Polycarboxylate Super Plasticizer Ether Liquid (PCE)

Product Description:

PCE is a polycarboxylate based high range water-reducing mother liquid which enables concrete to be produced with very low water to cement ratios. It does not contain added chlorides and will not promote corrosion in steel.

This product also plays a good role in reducing cement additive amount, improving water reducing efficiency and dropping shrinkage rate.

Using this product can validly boost concrete flow ability so to extend the setting time during construction. What's more, it can promote the workability and physical properties of the concrete, which is important for construction quality.

PCE is high-performance aqueous dispersion agent, which is special designed for self-compacting concrete, high-performance concrete and precast components. It is key ingredient in admixture of concrete.

It can improve the flow ability of concrete while significantly reduce the mixing water of concrete. It has high water-reducing to meet the performance requirements of self-compacting concrete, it also has the function on early strength.

Standards:

Complies with the requirements of the following standards:

ASTM C 494, Type A & F. BS EN 934-2.

Typical Analysis:

Name of Material	PCE - Liquid
Natural Characteristics	Polycarboxylic Acid Aqueous Solution
Colour	Light Yellow to Waxy Liquid
Solid Content	% 50 ± 3%
pH Value	4~6
Specific gravity	1.1 ± 0.02
Chloride Content (%)	< 0.01
Alkali Content (%)	< 1.5

Advantage of PCE:

- Improve productivity of the concrete.
- Reduce the comprehensive cost of the concrete.
- Improve the workability of the concrete.
- Promote the growth of the concrete strength.
- As polycarboxylates high performance water-reducing admixture.
- PCE can be used to design high-performance admixture products.

Application:

PCE are widely used in the production of self-compacting concrete, high performance concrete and various precast. It can significantly reduce the water consumption and improve the workability and early strength of the concrete.

PCE has functions such as slump protection, coagulation control, and shrinkage reduction. By adding polycarboxylate, the force between Portland cement particles and the physicochemical properties of their solid-liquid interface are changed, thus affecting the flowability of cement paste.

PCE are used as builders in detergents. Their high chelating power, even at low concentrations, reduces deposits on the laundry and inhibits the crystal growth of calcite. Polycarboxylate ethers (PCE) are used as superplasticizers in concrete production.

- High water-reducing rate.
- Achieve high efficiency at low dosage.
- Low air-entraining effect.
- Broad adaptability with many kinds of cement.

Using Method of PCE:

- The recommended dosage is 0.4%~0.6% (based on weight of cementing material).
- The most suitable dosage should be finalized according to the materials and characters of project and tests.
- Can be mixing with water, or can be added into the concrete batching plant separately.
- Can be mixed with high plastic retention type polycarboxylate superplasticizer and all kinds of retarders.

Storage of PCE:

- Sealed storage if unused, storage temperature is 0~40 °C.
- Storage period to maintain optimum performance is 24 months.

Safety Precautions of PCE:

Polycarboxylate super plasticizer PCE Liquid, if direct and prolonged contact with eyes and skin may cause irritation.

Wash the affected area of body with plenty of tap water immediately. If irritations persist for long time, please contact with doctor.

Packing:

200 Kg/Drum, 1100 Kg (IBC- Tank), Tanker.

Compatible:

It is compatible with air-entraining agents, microsilica, accelerators and many other admixtures; however, each material should be added to the concrete separately, and with all types of cement.

Fire:

PCE is non-flammable.

