

## **Water Reducing Type Polycarboxylate Superplasticizer 50%**

Water Reducing Type Polycarboxylate Superplasticizer 50% is an Eco-friendly new generation high performance polycarboxylate ether superplasticizer developed by our company with DD-909 (TPEG 2400) as main raw material.

### **Technical Principle**

The molecular chain shape of PCE is comb shaped. The main chain of PCE molecular are absorbed onto the surface of the cement particles, which can effectively hinder the hydration, enhance fluidity retention ability, the branch chains surrounded by cement particles play dual roles of steric hindrance and electrostatic repulsion, which is totally different from conventional water reducing agents.



### **Characteristics:**

1. High water reducing ratio: Excellent dispersion and water reducing ratio can attain **35%** or above at saturated dosage, which assures improving the workability of concrete, enhancing the concrete strength and saving cement application amount.
2. Good slump retention performance: It can well delay the transporting and on-site retention time of the concrete, assure the pumping performance of the concrete.
3. Enhance high strength : It has higher early strength growth ratio, can reduce shrinkage performance and reduce the carbonation rate of concrete.
4. Good adaptability: It has good dispersion and fluidity retention ability to varieties of silicate cement, common silicate cement, slag silicate cement and various admixtures.
5. Environmental friendly: No formaldehyde or other harmful ingredients.
6. Low energy consumption, low cost: short reaction cycle, low energy consumption, and low cost.

### **Quality Specification**

Item	Unit	Standard
Appearance	/	White or light yellow to brown viscous liquid
Density	g/cm <sup>3</sup>	1.10±0.02
PH	/	5-7
Solid content	%	50±1.0
Water reducing ratio	%	≥25
Cl <sup>-</sup>	%	≤0.02
Na <sub>2</sub> SO <sub>4</sub>	%	≤0.3

### Usage

1. Generally, the dosage range is 0.25%—0.8%, it can be beyond this range properly for special cements or aggregates.
2. The recommended stirring time is at least 150s for good water reducing effect.

**Packing:** Flexitank, 22 MT/20'GP ; 230kg/barrel, 18.4 MT/20'GP ;

1100 KG/IBC drum, 22 MT/20'GP

**Storage**

It is non-toxic, nonflammable and can be shipped as general chemicals.

Avoid direct sunlight. Keep away from fire or any kind of heat source.

Stored in cool and ventilated place separately with oxidants and strong acids and alkali.

**Shelf validity:** Six months