

**TECHNICAL DATA SHEET** 

# TriStar PCE SR50

A High Range Slump Retainer PolyCarboxylate Ether (PCE) Polymer for Concrete

TriStar PCE SR50 is a comb-type Polycarboxylate Ether Polymer, with superior slump-controlling and dispersion ability to cement, which can significantly enhance the workability of concrete mix. It has a Superior slump retention ability due to its sustained-release effect.

TriStar PCE SR50 is a base material for third-generation superplasticizer/concrete admixture. The product features:

- Good fluidity of concrete
- Reduced slump loss and higher retention workability
- Reduce the viscosity of concrete
- High compatibility with types of cement and mineral admixtures
- Good compatibility with materials containing high content of powder or clay
- Good surface appearance of concrete

Advantages:

- High workability without bleeding or division
- Maintaining optimal workability
- Cost-saving through enhancing performance
- Compatible with all PCE types
- High durability through increased strength
- High-strength concrete with low W/C

#### Specifications:

Property	Value	Method
Appearance	White to Yellow Brown Liquid	Visual
Concentration	Min 50%	160°C for 20min
pH (undiluted)	5-6	Stock solution
Specific Gravity	1.085-1.12	Hydrometer, 25°C
Viscosity	450-700	25°C, No.3, 60rpm

Application:

- Raw material for PCE-type superplasticizer blending
- High strength concrete
- Ready mix concrete
- Concretes requiring low stickiness

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- Other concretes that need high performance for slump retention
- General strength concrete
- Concrete for skyscrapers and large size buildings

# Recommended Usage:

It is recommended to be used in combination with High Range Water Reducing type PolyCarboxylate Ether such as TriStar PCE WR50 at a ratio of approx. 1:3. The Product has a recommended dosage range of 0.2-1.0 liters/100kgs of binders on a basis of undiluted solution. We recommend diluting it as per the application. Sodium gluconate is recommended to adjust the setting time if necessary. The optimum dosage of the Product may depend on the specific requirements of concrete properties and materials. It can be determined by trials using the materials and conditions.

# Side effects of Overdosing:

Overdosing can cause the segregation of concrete materials and thus the strength of concrete may become severely lower than the target value.

#### Compatibility:

All our PCE product line is well compatible with each other. To achieve either higher water reduction or longer retention, proper blending with other types of PCE is recommended to achieve the demanding result. The product is compatible with LignoSulfonate-based plasticizers, but NOT compatible with SNF-based ones.

# Storage & Handling

The Product should be stored at room temperature and should be avoided from direct sunlight. If stored in the original unopened container, it will have a shelf life of twelve (12) months. If the product is frozen, please agitate it slowly until it melts again.

Packing Bulk (21,000Kgs/Flexi Tank) or 1,100 Kgs/IBC

#### Precautions

The Product contains no hazardous materials and is completely transport-class free. However, it is recommended to use standard handling procedures with the product. Wear gloves and eye protection and splashes the skin with soap and water at the end of shifts or during breaks. For more information, please refer to the Material Safety Data Sheet.

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