



**Shandong Zhuoxing Chemical Co., Ltd.**

**Zibo Zhuoxing Enterprises Co., Ltd.**

## **TDS of SPS-45 Long-Acting Slow-Release & Slump-Retaining High-Performance PCE Flake**

### **Description**

SPS-45 is a new-generation, environmentally friendly, high-performance PCE flake characterized by long-acting slow-release & slump-retaining and full water solubility.

### **Technical Principle**

With EPEG-3000 as the primary raw material, slow-release groups are incorporated into the molecular structure to prolong the hydration reaction time of the material and reduce slump loss in concrete.

### **Advantages/Characteristics**

- (1) Solid content: 97% min.
- (2) Rapidity and completely dissolved in water.
- (3) The structure is designed for later release and must be used in conjunction with water-reducing admixtures.
- (4) Slow release maintains the product's performance for up to 3 hours.
- (5) It exhibits broad adaptability to different cement and aggregate systems, offering excellent compatibility with early-strength agents, air-entraining agents, defoamers, and other additives, thereby supporting multifunctional composite applications.

### **Application**

Applicable to various concrete construction projects such as high-strength, self-compacting, and mass concrete, it significantly enhances construction efficiency and structural durability.

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### **Quality Specification**

| Item                 | Unit              | Standard                           |
|----------------------|-------------------|------------------------------------|
| Appearance           | /                 | Off-white or light yellowish flake |
| Density              | kg/m <sup>3</sup> | 500±50                             |
| pH (23°C)            | /                 | 4.0±1.0                            |
| Solid Content        | %                 | ≥97.0                              |
| Moisture content     | %                 | ≤3.0                               |
| Water Reducing Ratio | %                 | ≥15                                |
| Cl <sup>-</sup>      | %                 | ≤0.02                              |
| Total Alkali content | %                 | ≤0.3                               |

### **Usage Instructions and Precautions**

- (1) Used in combination with a water-reducing agent, and the actual dosage should be determined through testing.
- (2) Testing must be conducted prior to use.
- (3) This product must not be mixed with naphthalene sulfonate admixtures.
- (4) Compatibility testing is required when used with other admixtures.

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### **Storage and Transportation Requirements**

Packaging Specifications: Packaged in 25kg plastic woven bags with PE inner liners.

For sea freight: 14 tons (including pallets) per 20 feet standard container; 28 tons (including pallets) per 40 feet high cube container.

For rail freight: 25.5 tons (including pallets) per 40 feet high cube container.

Transportation: Classified as non-hazardous chemicals; transport as general cargo. Protect from rain and moisture during transit.

### **Storage Conditions**

Store in a cool, dry, well-ventilated area. Strictly avoid moisture exposure, as it may cause clumping and affect performance. Protect from direct sunlight and high temperatures (recommended ambient temperature  $\leq 40^{\circ}\text{C}$ ).

### **Shelf Life**

12 months. Use after testing if stored beyond this period.