SIO-729 High-Temperature Resistant Phenyl Silicone Resin

Solid Organic Silicone Resin for Powder Coatings and Solvent-Based Coatings

Product Description

The ladder-like phenyl silicone resin is a silicon-containing compound with a $C_6H_5SiO_3/_2$ structure, synthesized using high-purity trifunctional phenyl alkoxy silane as the raw material through a special hydrolytic polymerization process. The resin has a ladder-like structure that provides excellent film-forming properties and high-temperature resistance. It is widely used in industries such as plastics, rubber, and coatings.

SIO-729 is a solid organic silicone resin with good compatibility with other organic resins. It can be used as a standalone resin in formulations or blended with other resins, and it is a solvent-free solid silicone resin.

Technical Specifications

Technical Specification	Details
Appearance	White powder, block, or flake
Color	Colorless to light yellow
Softening Point	60~90°C
Silicone Content	100%
Hydroxyl Content	2.5~5.0%
Curing Conditions	200~280°C, 10~60 minutes, preferably 220°C for 30 minutes

Applications

- Used as a base material for powder coatings, significantly enhancing heat resistance and aging resistance.
- When combined with suitable heat-resistant pigments and fillers, the coating can withstand temperatures up to 800°C.
- Exhibits good compatibility with acrylic resins, polyurethane resins, epoxy resins, and can be cold-blended.
- Used as a base material for the preparation of silicone molding compounds.
- Can be emulsified to produce water-based silicone resin emulsions and coatings.

Storage and Shelf Life

When stored in the original unopened packaging at or below 35°C, this product has a shelf life of 30 months from the date of production.

Packaging

Packaging specification: 50 kg paper drum.