Technical Data Sheet

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Silfluo LR-M123

Epoxy Modified Silicone Resin

Description:

Silfluo LR-M123 series are epoxy-modified silicone resins supplied at 50% solid content in xylene-containing solvent, combining the thermal stability and weatherability of silicone with the adhesion, chemical resistance, and crosslink density of epoxy. The two grades differ primarily in epoxy value and performance balance: LR-M123-4 carries a higher epoxy value (0.06–0.16), delivering superior corrosion resistance at the cost of slightly reduced continuous high-temperature endurance; LR-M123-6 carries a lower epoxy value (0.02–0.07), shifting the balance toward higher thermal performance. Both grades support room-temperature two-component cure with isocyanate hardeners and forced thermal cure at 180° C.

Typical Technical Properties:

Silfluo Code:	LR-M123 series epoxy modified silicone resin	
	M123-4	M123-6
Appearance	Colorless to light yellow transparent liquid, opalescence is permitted	
Solid content %	50±1	
Viscosity (4# cup, 25°C, S)	30-80	20-60
Epoxy value	0.06-0.16	0.02-0.07
Drying Time ≤	Surface drying 2h, drying by heating 180°C 1h	
Heat resistance (Varnish: float type aluminum powder =4:1, 400±10°C, 3h)	No peeling, no cracking, no blistering	

Application:

1. High-Temperature Anti-Corrosion Coatings

Formulated as a binder for heavy-duty industrial coatings requiring simultaneous thermal stability and chemical defense in harsh environments.

2. Electrical Insulating Coatings

Used in demanding electrical applications requiring strong dielectric strength and corona resistance.

3. Weather-Resistant Finishes

Applied as a protective coating for substrates exposed to harsh weathering, UV, moisture, and chemical environments.

Use reference:

1. Two-Component Ambient Curing: Crosslink at room temperature with isocyanate hardeners such as Bayer 3390 or N75 at 10–20% of total resin weight.

2. Forced Thermal Curing: Bake at 180° C for 1 hour. Compatible with amino resins to accelerate the cure

process.

3. Diluent Purity: Solvents introduced must be strictly free of moisture, acids, alkalis, amines, and sulfur-containing impurities. Contamination will severely degrade adhesion, drying characteristics, and cured film performance.

4. Safe Handling and Ventilation: This product is supplied in xylene and other flammable, explosive solvents. Explosion-proof ventilation must be maintained during processing. Keep away from open flames, ignition sources, and static electricity sources. Follow occupational safety protocols and use appropriate personal protective equipment (PPE).

Package &Storage:

In 200kg drum.

Keep in a cool, dry, and well-ventilated environment, strictly avoiding direct sunlight, and preventing contact with acids and alkalis. The shelf life is 6 months from the date of manufacture when stored under proper conditions. Classified and transported as a hazardous substance (flammable liquid).