Technical Data Sheet

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Silfluo LF-EM102

Epoxy-Modified Silicone Fluid

Description:

Silfluo LF-EM102 is a series of epoxy-modified silicone fluids available with pendant (EM102S) or terminal (EM102E) epoxy functionality. The epoxy groups provide reactive sites for incorporation into compatible organic resin systems. Depending on the epoxy structure and curing conditions, curing routes may include cationic polymerization or ring-opening reactions with suitable amine or anhydride curing agents.

The polysiloxane segments contribute surface wetting, slip and flexibility. The fluids have low surface tension and can improve surface smoothness when used as surface treatment agents. As internal additives, they may help reduce internal stress, brittleness and cracking.

Typical applications include UV-curable coatings, adhesives, electronic potting compounds, textile treatments and composites. The fluids may also improve adhesion and weather resistance.

Performance depends on the grade, formulation, compatibility and curing conditions.

Typical Physical Properties

Silfluo Code	LF-EM102
Appearance	Colorless to slightly yellow transparent liquid
Pendant Epoxy Grades — Dynamic Viscosity (25°C, mPa·s)	100–10000
Terminal Epoxy Grades — Dynamic Viscosity (25°C, mPa·s)	50–1500
Volatile Content (120°C, 3 h, %)	≤1

Applications:

1. Epoxy coatings and adhesives

Used as a reactive modifier in epoxy formulations cured with amines or anhydrides, combining silicone surface properties with the organic resin network.

2. Electronic potting and composites

Used as a formulation component to modify flexibility, internal stress and interfacial wetting in potting and composite resin systems.

3. Textile and surface treatment

Used in treatment formulations to improve surface smoothness and lubricity.

Packing

25 kg or 200 kg plastic drums, 200 kg plastic-lined steel drums, and 1000 L IBCs.

Safety and Storage

Shelf life: 12 months from the date of manufacture in original unopened containers at room temperature.

Transport as non-dangerous goods.

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