Technical Data Sheet

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Silfluo LF-MF11

Methyl-Terminated Fluorosilicone Fluid

Description:

Silfluo LF-MF11 is a series of trimethylsiloxy-terminated fluorosilicone fluids consisting of poly(3,3,3-trifluoropropylmethylsiloxane) or copolymers comprising fluorosiloxane and siloxane units, with trifluoropropyl groups pendant from the siloxane backbone.

The fluids are designed for a broad operating temperature range of approximately -60°C to +200°C. Actual long-term temperature capability and low-temperature flowability depend on the viscosity grade, fluorine content and operating environment and must be confirmed by grade-specific testing.

They feature low surface tension, good water repellency and moisture resistance, distinctive lubricity, high chemical stability, and good electrical insulating properties. The trifluoropropyl groups also contribute to resistance to hydrocarbon oils, fuels and selected organic solvents.

Typical Technical Properties:

Silfluo Code:	LF-MF11-LT	LF-MF11-MT	LF-MF11-MF	LF-MF11-HQ
Viscosity (25°C, mm²/s [cSt])	30-20,000			
Appearance	Colorless to pale yellow transparent oily liquid			
Refractive Index (25°C)	1.380-1.400			
Density (25°C, g/cm³)	1.00-1.30			
Notes:	Viscosity and fluorine content can be customized. Typical values; not for specification.			

Applications:

1. Non-Aqueous Antifoam and Foam-Control Formulations

Can be evaluated as an active fluid in antifoam formulations for solvent-based coatings, petrochemical processing, oil and gas separation and other non-aqueous systems, particularly where conventional PDMS fluids are soluble or ineffective. The optimum grade, carrier and addition level must be established in the actual process medium.

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2. Fuel- and Solvent-Resistant Lubricants and Greases

Can be used as a base fluid or formulation component for specialty lubricants, greases and release lubricants exposed to fuels, oils or selected solvents. Use on medical-device components requires separate biocompatibility, extractables, process and regulatory qualification; this TDS does not establish medical compliance.

3. Damping and Buffer Fluids

Suitable for evaluation in precision instruments, electronic components and mechanical damping or buffer systems that may contact fuels, solvents or selected polar media. Select viscosity against damping response, operating temperature, material compatibility and required electrical properties.

4. Release Agent for Rubber and Thermoplastics

Can be evaluated as an external or formulated release agent for silicone rubber, fluororubber and compatible thermoplastics. Release efficiency, transfer, surface appearance, downstream adhesion and paintability must be checked on the actual material and process.

5. Water- and Oil-Repellent Surface-Treatment Component

Can be used as a formulation component for treating textiles, leather and glass fibers where water repellency, oil repellency, stain resistance and corrosion-protection/barrier performance are required. Because the fluid is methyl-terminated and non-reactive, treatment durability depends on the carrier, binder, application process and substrate adhesion; it is not a standalone corrosion inhibitor.

Package & Storage:

Available in 5 kg, 20 kg, 25 kg and 200 kg plastic or steel drums.

Keep away from strong oxidizing agents, corrosive materials, acids and alkalis. Store tightly closed at ambient temperature in a dry, well-ventilated place, protected from direct sunlight and rain. Keep away from heat and open flames. Transport as non-dangerous goods, subject to the current SDS and applicable regulations.

Recommended shelf life: 12 months from the date of manufacture under the recommended storage conditions. Material stored beyond this period should be re-evaluated against the applicable quality requirements before use.

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