



Silfluo LF-201

Dimethyl Silicone Fluid

Description:

Silfluo LF-201 is a series of standard-to-high viscosity polydimethylsiloxane (PDMS) fluids (CAS 63148-62-9), available in precisely controlled viscosity grades from 100 mPa · s to 60,000 mPa · s.

The series is characterized by crystal-clear appearance, odorless and chemically inert nature, exceptionally flat viscosity-temperature profile, outstanding thermal stability (flash point $\geq 310^\circ\text{C}$ across all grades), excellent dielectric properties, inherent water repellency, and low surface tension.

Grades span the full range from low-viscosity film-forming and surface-treatment applications through high-viscosity mechanical damping and heavy-duty defoaming base applications.

Typical Technical Properties:

Silfluo Code:	LF-201 -100	LF-201 -200	LF-201 -350	LF-201 -500	LF-201 -1000	LF-201 -12500	LF-201 -60000
Chemical Name:	Polydimethylsiloxane (PDMS)						
Synonyms:	Dimethyl Silicone Oil; Dimethicone						
Molecular Formula:	$(\text{C}_2\text{H}_6\text{OSi})_n$						
Molecular Weight:	Variable (Polymer)						
CAS NO.:	63148-62-9						
EINECS NO.:	613-156-5						
Viscosity (25°C, mPa.s)	100±5	200±20	350±20	500±25	1000±50	12500±630	60000±3000
Flash Point (opened cup), °C	≥310	≥310	≥315	≥315	≥320	≥330	≥330
Density (25°C, g/cm ³)	0.958~0.96 8	0.960~0.9 72	0.962~0.9 72	0.962~0.9 72	0.965~0.9 75	0.968~0.97 8	0.970~0.980
Refractive Index(25°C, nD25)	1.4020~1.4 040	1.4020~1. 4040	1.4020~1. 4040	1.4020~1. 4040	1.4025~1. 4045	1.4025~1.4 045	1.4025~1.404 5
Volatile(150°C, 2h)/%	≤1.00	≤1.00	≤1.00	≤1.00	≤1.00	≤1.00	≤1.00

Applications:

1. Mold Release Agent

Acts as a highly efficient, non-carbonizing release agent for rubber, plastics, and metal die-casting. Creates a durable, non-stick parting film ensuring clean demolding and reduced defect rates. Recommended grades: LF-201-100 to LF-201-500 for spray application; higher viscosity grades for brush or wipe application.

2. Defoamer and Antifoam Agent

Extremely low surface tension enables effective foam control at very low addition levels in aqueous and non-aqueous systems. Used in petroleum refining, chemical processing, fermentation, paint manufacturing,

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and wastewater treatment. Recommended grades: LF-201-200 to LF-201-1000 as defoamer base fluid.

3. Mechanical Damping Fluid

Flat viscosity-temperature profile and high shear stability make mid-to-high viscosity grades ideal for dashpots, shock absorbers, precision gauges, and hydraulic timers requiring consistent damping performance across temperature extremes. Recommended grades: LF-201-1000 to LF-201-60000.

4. Cosmetics and Personal Care (Dimethicone)

Functions as a highly effective emollient in hand creams, skin protectants, sunscreens, and hair grooming products. Forms a breathable, non-greasy protective barrier imparting a silky-smooth feel. Recommended grades: LF-201-200 to LF-201-1000 depending on desired skin feel and spreadability.

5. Surface Care and Polishes

Critical active ingredient in automotive waxes, furniture polishes, and leather care products, providing high gloss, water repellency, and easy rub-out. Recommended grades: LF-201-100 to LF-201-350.

6. Paint and Coating Additive

Used at micro-dose levels to improve flow, leveling, and mar resistance in industrial coatings while preventing pigment floating and silking. Recommended grades: LF-201-100 to LF-201-350; verify compatibility at target loading in specific formulation.

7. Electrical and Dielectric Fluid

Excellent dielectric strength and thermal stability suit the LF-201 series as insulating and heat-transfer fluid in specialized electrical transformers and capacitors. Recommended grades: LF-201-500 to LF-201-12500.

8. Industrial Lubricant

Provides long-lasting, non-reactive lubrication for plastic-to-plastic and plastic-to-metal moving parts in precision mechanisms, reducing friction and wear under continuous service. Recommended grades: LF-201-350 to LF-201-1000.

Grade	Viscosity	Recommended Primary Use
LF-201-100	100 mPa·s	Mold release; surface care; paint additive; light lubrication
LF-201-200	200 mPa·s	Cosmetics emollient; defoamer base; coating additive
LF-201-350	350 mPa·s	Personal care; polishes; general-purpose fluid
LF-201-500	500 mPa·s	Defoamer base; cosmetics; surface treatment
LF-201-1000	1,000 mPa·s	Light damping fluid; heavy defoamer; dielectric fluid
LF-201-12500	12,500 mPa·s	Mechanical damping; shock absorbers; hydraulic timers

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Grade	Viscosity	Recommended Primary Use
LF-201-60000	60,000 mPa·s	High-load damping; heavy-duty release agent base

Package & Storage:

In 200kg drum and 950kg, 1000kg IBC.

Keep in cool, dry and ventilated place. Keep away from sunlight and fire sources. Keep in unopened containers, shelf life is 24 months from the date of production. It is shipped as non-hazardous substance.

Storage beyond the shelf life does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.