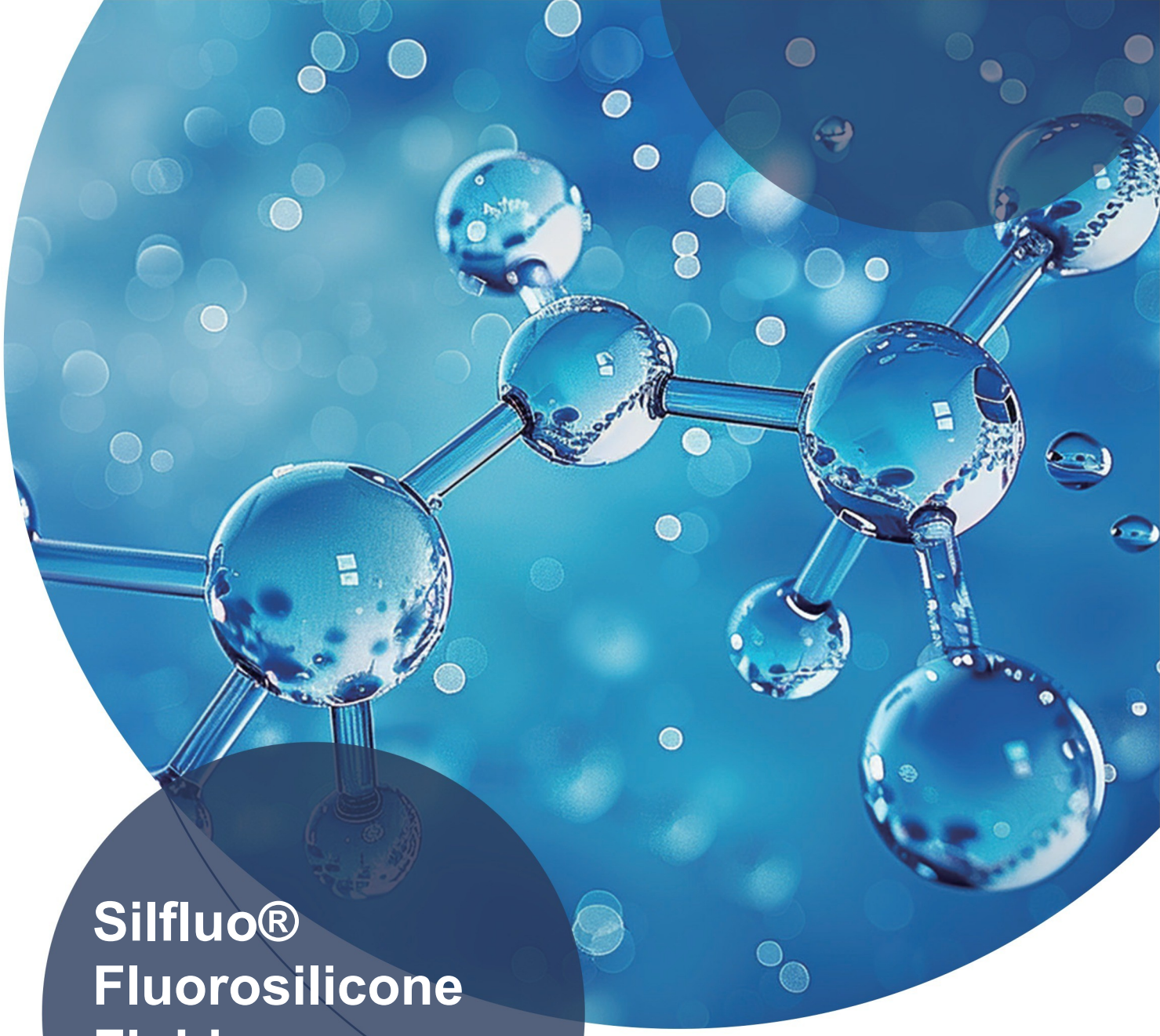


Silfluo® Fluorosilicone Fluids

Chemistry, Grade Selection and Applications

Nanjing Silfluo New Material Co., Ltd.

Silfluo

www.silfluosilicone.com

FLUOROSILICONE FLUIDS

Silicone performance where fuels, oils and solvents are present.

Fluorosilicone fluids are polysiloxanes in which methyl groups on silicon are partly or fully replaced by 3,3,3-trifluoropropyl groups ($–CH_2CH_2CF_3$). The Si–O backbone keeps the flexibility, wide temperature range and electrical properties of silicone; the fluorinated side groups add resistance to hydrocarbon fuels, oils and many solvents.

Silfluo supplies non-reactive fluorosilicone fluids for lubrication, damping, release and foam control, and reactive grades – silanol, vinyl, Si–H, amino, carbinol and polyether functional – as building blocks for fluorosilicone rubber, sealants, release coatings and polyurethane systems.

Viscosity, fluorine content and functional-group content can be adjusted to the application.



11
product series, from non-reactive fluids to reactive intermediates

–60 to +200 °C
approximate operating range of LF-MF11, depending on grade

1.380–1.400
refractive index at 25 °C, below dimethyl silicone fluid (1.402–1.405)

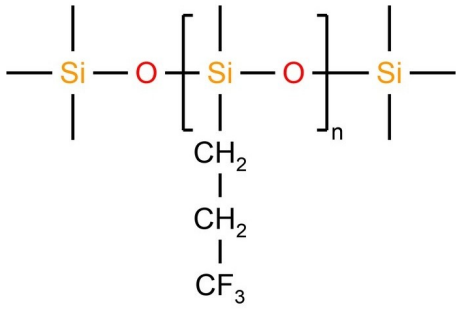
0.03–0.80 wt%
Si–H content range of the LF-HF12 crosslinker grades

Contents

02 The trifluoropropyl group
03 The product range
04 Selection guide
05 Applications
07 Formulating reactive grades
08 Product data
12 Related Silfluo materials
13 Quality and test methods
14 Handling and regulatory notes

THE TRIFLUOROPROPYL GROUP

A fluorosilicone fluid is a silicone chain carrying 3,3,3-trifluoropropyl side groups. Fluorine is bound only to carbon (C–F); there are no Si–F bonds.



LF-MF11: trimethylsiloxy-terminated poly(3,3,3-trifluoropropylmethylsiloxane)

Resistance to fuels and oils

The CF_3 end of the side group makes the polymer incompatible with non-polar hydrocarbons. Fluorosilicone fluids do not mix with fuels, mineral oils and aliphatic hydrocarbons, and elastomers made from them swell much less in these media than dimethyl silicone rubber.

A silicone backbone

The Si–O chain stays flexible at low temperature and stable at high temperature. LF-MF11 is designed for about –60 °C to +200 °C; the actual range depends on viscosity, fluorine content and service conditions.

Different polarity

The fluorinated groups raise the density to 1.00–1.30 g/cm³ and lower the refractive index to 1.380–1.400. Ketones and esters such as MEK, MIBK and butyl acetate dissolve fluorosilicones and are used as their coating solvents; do not rely on fluorosilicone where long contact with these solvents is expected.

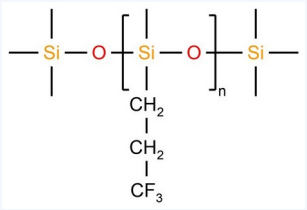
Dimethyl silicone fluid and fluorosilicone fluid compared

Property	Dimethyl silicone fluid (LF-201)	Fluorosilicone fluid
Side groups on silicon	Methyl	Methyl and 3,3,3-trifluoropropyl
Density, 25 °C (g/cm³)	0.958–0.980	1.00–1.30
Refractive index, 25 °C	1.4020–1.4045	1.380–1.400
Flash point (°C)	≥310 (open cup)	>240 (LF-HF11)
Fuels, mineral oils, aliphatic hydrocarbons	Miscible	Not miscible
Reactive grades in the Silfluo range	Silanol, vinyl, Si–H, alkoxy, organofunctional	Silanol, vinyl, Si–H, amino, carbinol, polyether

Values from the Silfluo LF-201 and fluorosilicone fluid TDS. Typical values; not for specification.

THE PRODUCT RANGE

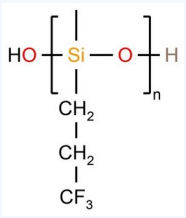
Eleven product series in six families. The end groups and side groups decide what a fluid reacts with and where it is used.



Non-reactive fluids

LF-MF11, LF-CMF11

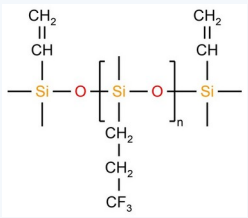
Trimethylsiloxy ends. Base fluids for lubricants, greases, damping fluids, release agents and foam control in non-aqueous media.



Silanol fluids

LF-HF11, LF-CHF11, LF-VHF13

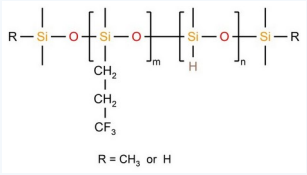
Si–OH ends. Structure-control agents for fluorosilicone rubber and base polymers for condensation-cure RTV systems. LF-VHF13 also carries vinyl groups.



Vinyl fluids

LF-VF11

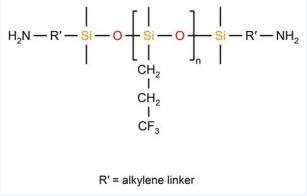
Terminal or terminal and pendant vinyl groups. Base polymers for platinum-cure fluorosilicone rubber, potting compounds, adhesives and low-refractive-index systems.



Si–H fluids

LF-HF12

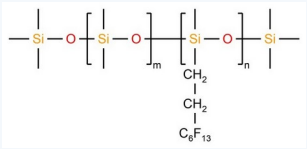
Terminal, pendant or terminal and pendant Si–H. Crosslinkers for addition-cure fluorosilicones and release coatings; intermediates for hydrosilylation.



Organofunctional fluids

LF-AF11, LF-CF11, LF-PEF11

Amino and carbinol grades react with isocyanates and build fluorosilicone segments into polyurethanes. The polyether grade is a coating and defoamer additive.



Perfluoroalkyl silicone fluid

LF-PFH11

Perfluorohexyl side groups. Raw material for water- and oil-repellent treatments of stone, concrete and textiles.

SELECTION GUIDE

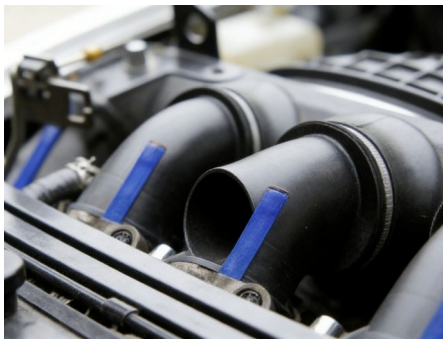
Grade	Rubber and sealants	Foam control	Lubrication and damping	Release	Coatings, inks and PU	Textile and surface treatment	Optical, low RI
LF-MF11		•	•	•		•	
LF-CMF11			•				
LF-HF11	•						
LF-CHF11	•	•	•			•	
LF-VHF13	•						
LF-VF11	•						•
LF-HF12	•			•		•	
LF-AF11					•	•	
LF-CF11					•		
LF-PEF11		•			•		
LF-PFH11						•	

• use stated in the product TDS. Suitability must be confirmed in the customer's formulation and process.

Which grade for which task

Task	Grades
Platinum-cure fluorosilicone rubber, gels, potting compounds and adhesives	**LF-VF11 + LF-HF12**
Condensation-cure RTV sealants and mould-making rubber	**LF-HF11 (1,000 / 5,000 cSt)**
Structure control in fluorosilicone HCR compounding	**LF-HF11 low-MW grades, LF-VHF13, LF-CHF11**
Antifoam for oil and gas separation, petrochemical processing and solvent-based coatings	**LF-MF11**
Self-emulsifying defoamers for aqueous systems; coating wetting and leveling	**LF-PEF11**
Lubricants and greases in contact with fuels, oils or solvents	**LF-MF11, LF-CMF11**
Fluorosilicone release coatings and PET release films	**LF-VF11 + LF-HF12**
Fluorosilicone-modified polyurethane coatings, inks and elastomers	**LF-AF11, LF-CF11**
Water- and oil-repellent treatment of stone and concrete	**LF-PFH11**
Low-refractive-index adhesives, display films and OCA	**LF-VF11**

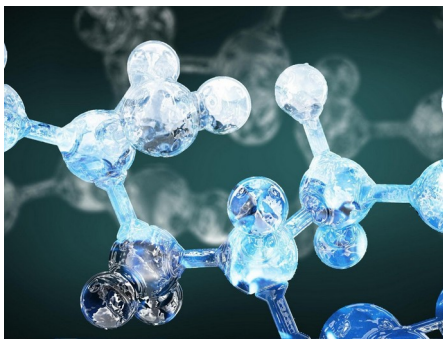
APPLICATIONS



Fluorosilicone rubber and sealants

Reactive fluorosilicone fluids are building blocks of FVMQ elastomers for fuel-system seals, hose liners, diaphragms and O-rings. Vinyl and Si–H fluids form platinum-cure liquid fluorosilicone rubber and potting compounds; silanol fluids are RTV base polymers and, at low molecular weight, structure-control agents that reduce storage hardening of HCR compounds.

Grades: LF-VF11, LF-HF12, LF-HF11, LF-VHF13, LF-CHF11



Foam control in non-aqueous media

Dimethyl silicone fluids dissolve in many hydrocarbon media and then lose their effect. Fluorosilicone fluids can be evaluated as the active fluid in antifoams for solvent-based coatings, petrochemical processing and oil and gas separation, where conventional PDMS is soluble or ineffective. The polyether-modified grade serves self-emulsifying defoamers for aqueous systems and solvent-based defoamers.

Grades: LF-MF11, LF-PEF11, LF-CHF11



Lubrication and damping

As base fluids or components of lubricants and greases, fluorosilicone fluids lubricate valves, bearings, gears, seals and gaskets that contact fuels, lubricating oils or solvents, including high-speed bearings in chemical media. The viscosity range of 30–20,000 mm²/s (LF-MF11) also suits damping and buffer fluids in instruments and electronic components.

Grades: LF-MF11, LF-CMF11



Release agents and release coatings

LF-MF11 can be evaluated as an external or formulated release agent for silicone rubber, fluororubber and compatible thermoplastics. LF-HF12 is the Si–H crosslinker in platinum-cure fluorosilicone release coatings: with LF-VF11 it is coated on PET film to make transparent fluorosilicone release films. Check release, transfer, appearance and later adhesion or painting on the actual part.

Grades: LF-MF11, LF-VF11, LF-HF12

APPLICATIONS (CONTINUED)



Coatings, inks and polyurethanes

Amino (LF-AF11) and carbinol (LF-CF11) fluorosilicones react with isocyanates and become part of the polyurethane binder through urea or urethane links. Depending on formulation they add oil and solvent resistance, slip, stain resistance and easy-clean properties. LF-PEF11 is a wetting, dispersing and leveling additive for coatings.

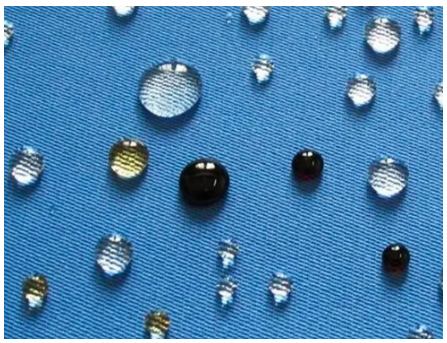
Grades: LF-AF11, LF-CF11, LF-PEF11



Stone and concrete protection

LF-PFH11 is a raw material for water- and oil-repellent treatments of absorbent stone and concrete. The treatment penetrates the pores, protects within the substrate and at the surface, and helps prevent water spots, discoloration and whitening while the substrate stays breathable.

Grades: LF-PFH11



Textiles, leather and fibres

Fluorosilicone fluids are formulated into textile finishes and treatments for leather and glass fibre where water and oil repellency, stain resistance and a smooth hand are wanted. Si–H and amino grades can bond to the substrate after suitable formulation; durability and ratings must be tested on each substrate.

Grades: LF-CHF11, LF-HF12, LF-AF11, LF-MF11, LF-PFH11



Optical and electronic materials

The low refractive index of LF-VF11 supports formulation work on low-refractive-index adhesives, liquid-crystal display films and optically clear adhesives (OCA). In properly cured systems it can help to reach low dimensional change, low haze and a low yellowness index. Damping-grade LF-MF11 is used in precision instruments and electronic components.

Grades: LF-VF11, LF-MF11

FORMULATING REACTIVE GRADES

Addition cure (platinum)

LF-VF11 vinyl fluid + LF-HF12 Si–H crosslinker + Platinum catalyst + inhibitor → Rubber, gel, potting, adhesive, release coat

Vinyl groups add to Si–H groups by hydrosilylation. The Si–H-to-vinyl ratio and the grade choice set crosslink density, cure speed and final properties; check compatibility and catalyst inhibition in the complete formulation.

Condensation cure (RTV)

LF-HF11 1,000 / 5,000 cSt + Multifunctional silane crosslinker + Condensation catalyst → RTV sealant, mould-making rubber, coating

Si–OH end groups condense with the crosslinker. Crosslinker level, catalyst, filler compatibility and cure conditions are set in the complete formulation.

Structure control in HCR

LF-HF11 low-MW or LF-VHF13 + Fumed silica + Fluorosilicone gum (LR-F5100) → Stable, processable compound

Silanol groups interact with the silica surface, control viscosity and reduce storage hardening. Low-MW LF-HF11 grades carry 3.5–6.0 wt% (MF50, HS50) or ≥8.0 wt% OH (HX80); LF-VHF13 (vinyl 5 wt%, OH 3–8 wt%) also brings vinyl groups onto the filler and raises crosslink density.

Polyurethane modification

LF-AF11 amino or LF-CF11 carbinol + Polyol or amine resin + Isocyanate (NCO) component → Urea- or urethane-linked fluorosilicone

Set the NCO index from the amine value of LF-AF11 (0.1–0.4 mmol/g) or the hydroxyl value of LF-CF11 (22–32 mg KOH/g). The amine–isocyanate reaction is fast: control the order of addition, moisture and temperature.

LF-HF12 grades

Grade	Si–H position	Si–H (wt%)	Viscosity, 25 °C (mm²/s)
LF-HF12-M20	Pendant, methyl-terminated	0.20	20–100
LF-HF12-M80	Pendant, methyl-terminated	0.80	20–100
LF-HF12-TS45	Terminal and pendant	0.45	20–100
LF-HF12-TS40	Terminal and pendant	0.40	20–100
LF-HF12-T03	Terminal	0.03	200

Code: M = pendant Si–H with methyl ends, TS = terminal and pendant, T = terminal; number = Si–H wt% × 100.

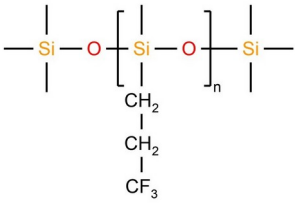
Si–H materials

LF-HF12 can release hydrogen in contact with moisture, alcohols, acids, alkalis or metal catalysts. Keep containers closed, keep the product away from these materials and from heat and open flames.

PRODUCT DATA

Non-reactive fluids

LF-MF11 Methyl-Terminated Fluorosilicone Fluid

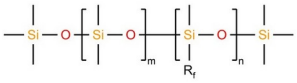


Trimethylsiloxy-terminated poly(3,3,3-trifluoropropylmethylsiloxane) or copolymers of fluorosiloxane and siloxane units. Low surface tension, water repellency and moisture resistance, lubricity, chemical stability and good electrical insulation; resistant to hydrocarbon oils, fuels and selected solvents. Grades LF-MF11-LT, -MT, -MF and -HQ.

CAS No.	63148-56-1
Viscosity, 25 °C	30–20,000 mm²/s
Refractive index, 25 °C	1.380–1.400
Density, 25 °C	1.00–1.30 g/cm³
Operating range	about –60 to +200 °C
Appearance	Colourless to pale yellow, transparent

Packaging: 5, 20, 25 and 200 kg drums

LF-CMF11 Methyl Fluorosilicone Copolymer Fluid



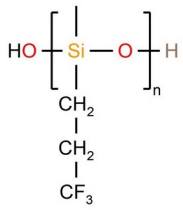
Methyl fluorosilicone copolymer fluid; composition and viscosity made to order, for example 10–20 or 40–50 mol% trifluoropropylmethylsiloxane units at about 1,000 mm²/s. For lubricating high-speed bearings in chemical media and for valves, bearings, gears, seals and gaskets that contact fuels, lubricating oils or solvents.

CAS No.	115361-68-7
Viscosity, 25 °C	to order; confirmed in the product specification
Appearance	Colourless to pale yellow, transparent

Packaging: 5, 20, 25 and 200 kg drums

Silanol fluids

LF-HF11 Silanol-Terminated Fluorosilicone Fluid



Silanol-terminated fluorosiloxane polymers or fluorosiloxane–siloxane copolymers. Low-molecular-weight grades are structure-control agents in fluorosilicone rubber; the 1,000 and 5,000 cSt grades are base fluids and reactive diluents for condensation-cure RTV fluorosilicone.

CAS No.	68607-77-2
Refractive index, 25 °C	1.380–1.400
Density, 25 °C	1.00–1.30 g/cm³
Flash point	>240 °C
Volatiles, 200 °C / 4 h	<5 wt%

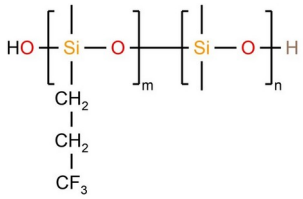
Grade	MF50	HS50	HX80	HX1000	HX5000
OH content (wt%)	3.5–6.0	3.5–6.0	≥8.0	–	–
Viscosity, 25 °C (mm²/s)	40–60	40–60	60–100	1,000	5,000

Packaging: 5, 25 and 200 kg drums

PRODUCT DATA (CONTINUED)

Silanol fluids

LF-CHF11 Hydroxyl Fluorosilicone Copolymer Fluid

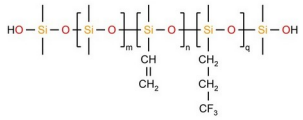


Hydroxyl fluorosilicone copolymer fluid; an intermediate, molecular-weight regulator and processing aid in fluorosilicone rubber, and a raw material for water- and oil-repellent agents, defoamers, lubricating oils and textile auxiliaries. Specifications vary with fluorine content.

Viscosity	50–50,000 mPa·s

Packaging: 1, 5, 10, 25 and 200 kg

LF-VHF13 Silanol- and Vinyl-Functional Fluorosilicone Fluid



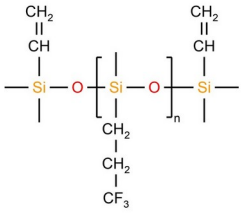
Silanol-terminated fluorosiloxane with pendant vinyl and trifluoropropyl groups. Treats filler surfaces and puts vinyl groups onto them, raising crosslink density. Structure-control agent for fluorosilicone rubber and for oil-resistant silicone rubber formulations.

Grade	LF-VHF13-MF50
Viscosity, 25 °C	30–100 mm²/s
Vinyl content	5 wt%
Silanol (OH) content	3–8 wt%
Refractive index / density	1.380–1.400 / 1.00–1.30 g/cm³

Packaging: 5, 25 and 200 kg drums

Vinyl and Si–H fluids

LF-VF11 Vinyl-Functional Fluorosilicone Fluid



Vinyl-functional fluorosilicone fluids with terminal or terminal and pendant vinyl groups. Reactive base fluid for addition-cure fluorosilicone elastomers, liquid fluorosilicone rubber, potting compounds and adhesives, and for low-refractive-index optical formulations. Vinyl content is matched to viscosity. Grades with pendant vinyl groups (vinyl- or methyl-terminated) are made to a specified viscosity, vinyl and fluorine content.

CAS No.	68951-98-4
Viscosity, 25 °C	50–50,000 mm²/s
Refractive index, 25 °C	1.380–1.400
Density, 25 °C	1.00–1.30 g/cm³

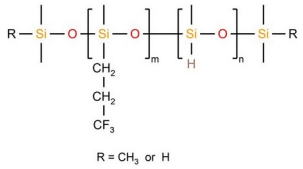
Grade	LF-VF11-LT	LF-VF11-MT	LF-VF11-MF	LF-VF11-HQ
Trifluoropropyl content (nominal)	10 wt%	30 wt%	50 wt%	80 wt%

Packaging: 5, 25 and 200 kg drums

PRODUCT DATA (CONTINUED)

Vinyl and Si–H fluids

LF-HF12 Hydrogen-Functional Fluorosilicone Fluid



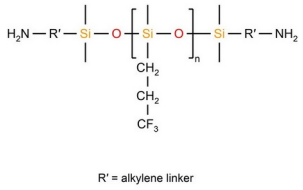
Si–H-functional fluorosilicone fluids with terminal, pendant or terminal and pendant Si–H. Crosslinker for platinum-cure fluorosilicone rubber, potting compounds, gels, adhesives and release coatings; intermediate for hydrosilylation. Grades and Si–H contents: see page 07.

CAS No.	67923-24-4 (M, TS); 1988741-30-5 (T03)
Si–H content	0.03–0.80 wt%
Viscosity, 25 °C	20–100 / 200 mm²/s
Refractive index, 25 °C	1.380–1.400
Density, 25 °C	1.00–1.30 g/cm³

Packaging: 5, 25 and 200 kg drums

Organofunctional fluids

LF-AF11 Amino-Functional Fluorosilicone Fluid

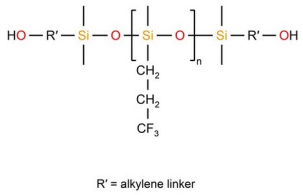


Fluorosiloxane polymers or copolymers with amino-functional end groups. Reactive modifier for polyurethane coatings, inks, elastomers and plastics through the amine–isocyanate reaction; can also be screened in textile and surface treatments.

Viscosity, 25 °C	200–3,000 mPa·s
Amine value	0.1–0.4 mmol/g
Refractive index, 25 °C	1.3800 ± 0.01
Appearance	Transparent or translucent, viscous

Packaging: 100 g; 1, 5, 10, 20, 25 and 200 kg

LF-CF11 Carbinol-Functional Fluorosilicone Fluid



Fluorosiloxane polymer or copolymer with carbon-bound hydroxyl end groups (Si–C–OH, not silanol). Reacts with isocyanates to form urethane links; reactive modifier for polyurethane coatings, inks, elastomers and resins.

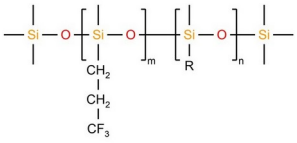
Viscosity, 25 °C	1,500–2,000 mm²/s
Hydroxyl value	22–32 mg KOH/g
Refractive index, 25 °C	1.380
Density, 25 °C	1.28 g/cm³

Packaging: 5, 20, 25 and 200 kg drums

PRODUCT DATA (CONTINUED)

Organofunctional fluids

LF-PEF11 Polyether-Modified Fluorosiloxane



R = $(CH_2)_3O(C_2H_4O)_a(C_3H_6O)_bR'$

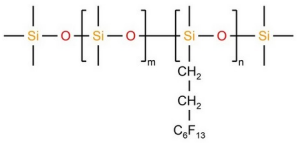
Polyether-modified fluorosiloxane for wetting, dispersing and leveling in coatings, for self-emulsifying defoamers in aqueous systems and for solvent-based defoamer systems.

Viscosity	100–5,000 mPa·s
Appearance	Colourless or slightly yellow, transparent

Packaging: 1, 5, 10, 25 and 180 kg

Perfluoroalkyl silicone fluid

LF-PFH11 Perfluorohexyl Silicone Fluid



Perfluorohexyl-modified silicone fluid for water- and oil-repellent treatments of absorbent stone and concrete and for textile finishing auxiliaries. Specifications vary with fluorine content. See the regulatory notes on page 14 before use in the EU.

Specification	varies with fluorine content

Packaging: 1, 5, 10, 25 and 200 kg

Product data at a glance

Grade	Type	Viscosity, 25 °C	Characteristic value
LF-MF11	Trimethylsiloxy-terminated	30–20,000 mm²/s	RI 1.380–1.400, density 1.00–1.30 g/cm³
LF-CMF11	Methyl fluorosilicone copolymer	to order	Composition to order
LF-HF11	Silanol-terminated	40–5,000 mm²/s	OH 3.5–6.0 or ≥8.0 wt% (low-MW grades)
LF-CHF11	Hydroxyl copolymer	50–50,000 mPa·s	Varies with fluorine content
LF-VHF13	Silanol-terminated, pendant vinyl	30–100 mm²/s	Vinyl 5 wt%, OH 3–8 wt%
LF-VF11	Vinyl-functional	50–50,000 mm²/s	Trifluoropropyl 10–80 wt% (nominal)
LF-HF12	Si–H functional	20–100 or 200 mm²/s	Si–H 0.03–0.80 wt%
LF-AF11	Amino-functional	200–3,000 mPa·s	Amine value 0.1–0.4 mmol/g
LF-CF11	Carbinol-functional	1,500–2,000 mm²/s	Hydroxyl value 22–32 mg KOH/g
LF-PEF11	Polyether-modified	100–5,000 mPa·s	Coating and defoamer additive
LF-PFH11	Perfluorohexyl-modified	–	Varies with fluorine content

Typical values from the product TDS; not for specification.

RELATED SILFLUO MATERIALS

From monomer to finished elastomer: Silfluo supplies the materials around fluorosilicone fluids.

Monomers and intermediates

LS-532	(3,3,3-Trifluoropropyl)dichloromethylsilane, CAS 675-62-7: chlorosilane intermediate for D3F, fluorosilicone fluids and FVMQ bases
LS-M531	(3,3,3-Trifluoropropyl)methyldimethoxysilane, CAS 358-67-8: difunctional monomer for fluorosilicone fluids and FVMQ bases
LS-M53	(3,3,3-Trifluoropropyl)trimethoxysilane, CAS 429-60-7: monomer for fluorosilicone fluids and FVMQ, coupling agent
LS-651	D3F, 1,3,5-tris[(3,3,3-trifluoropropyl)methyl]cyclotrisiloxane, CAS 2374-14-3: ring-opening monomer for FVMQ and fluorosilicone fluids

Fluorosilicone fluids

LF-MF11 … LF-PFH11	Non-reactive, silanol, vinyl, Si–H, organofunctional and perfluoroalkyl fluids (this brochure)
FRA-500L / FRA-20000	Solvent-free fluorinated release agents, 100% active, platinum-cured with an LF-HF12 crosslinker; release force 1–3 g

Fluorosilicone rubber and sealants

LR-F5100	Fluorosilicone gum (FVMQ), base polymer for fuel- and oil-resistant HCR compounds
LR-F5200 … F5700	FVMQ compounds: high tear, low compression set, high resilience, adhesion, flame-retardant and extrusion grades
LR-FL3400	Addition-cure liquid fluorosilicone rubber for liquid injection moulding
LR-FL2100	Two-part RTV liquid fluorosilicone rubber for FIPG gaskets, potting and connector sealing
LR-FR3000	One-component RTV fluorosilicone sealant for formed-in-place sealing



LR-F5100 fluorosilicone gum



Fluorosilicone O-rings

Product data: see the Silfluo silicone rubber brochures and the TDS of each product.

QUALITY AND TEST METHODS

Every batch is tested against its specification before release, and a certificate of analysis (COA) is supplied with each delivery.

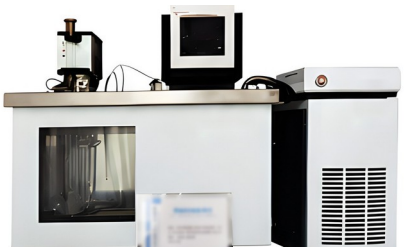
Batch release tests

Product family	Tests
All grades	Appearance, viscosity, refractive index, density
Silanol fluids (LF-HF11, LF-CHF11, LF-VHF13)	+ hydroxyl (OH) content; volatiles
Vinyl fluids (LF-VF11, LF-VHF13)	+ vinyl content
Si–H fluids (LF-HF12)	+ Si–H content
Amino and carbinol fluids (LF-AF11, LF-CF11)	+ amine value or hydroxyl value

Reference test methods

Property	Method	Standards
Kinematic viscosity	Capillary viscometer	ASTM D445, ISO 3104, GB/T 265
Dynamic viscosity	Rotational viscometer	ISO 2555
Refractive index	Abbe refractometer	ASTM D1218, GB/T 6488
Density	Oscillating U-tube density meter	ASTM D4052, GB/T 4472
Flash point	Cleveland open cup	ASTM D92, ISO 2592, GB/T 3536
Evaporation loss (lubricants)	Oven method	ASTM D972, GB/T 7325
Extreme-pressure properties (lubricants)	Four-ball tester	ASTM D2783, GB/T 12583
Functional groups	Titration, FTIR	Per Silfluo method

The method used for each test is stated on the COA.



Automated viscometer



Abbe refractometer



Density meter



FTIR spectrometer



Automatic titrator



Gas chromatograph

HANDLING AND REGULATORY NOTES

Packaging



20–25 kg
plastic drum



200 kg
plastic or steel drum

Most grades are supplied in 5, 20, 25 and 200 kg plastic or steel drums; some grades also in 100 g, 1 kg and 10 kg packs and in 180 kg drums. Pack sizes for each grade are given on its TDS; please confirm when ordering.

Storage and transport

Storage	Store tightly closed at ambient temperature in a dry, well-ventilated place, protected from direct sunlight and rain, away from heat and open flames.
Incompatible materials	Strong oxidizing agents, corrosive materials, acids and alkalis. Keep moisture out of amino and carbinol grades.
Si–H grades	LF-HF12 can release hydrogen in contact with moisture, alcohols, acids, alkalis or metal catalysts.
Shelf life	12 months from the date of manufacture under the recommended conditions; re-test against the specification after this period.
Transport	Non-dangerous goods, subject to the current SDS and the applicable transport regulations.
Documents	TDS for each series in English and Chinese; SDS on request; COA with each delivery; samples for evaluation on request.

Regulatory notes (status: November 2026)

Trifluoropropyl fluorosilicones contain a $–CF_3$ group and fall within the broad OECD structural definition of PFAS. The EU proposal to restrict PFAS under REACH (2023) is still under evaluation by ECHA's committees and has not been adopted; use-specific derogations are being discussed.

LF-PFH11 carries C6 perfluorohexyl groups. In the EU, PFHxA, its salts and PFHxA-related substances are restricted in consumer textiles, consumer mixtures, cosmetics and food-contact paper from 10 October 2026 (REACH Annex XVII, entry 79); further uses follow from 10 October 2027.

Rules change and differ by country. Ask Silfluo for the SDS and a regulatory statement for your market, and check the requirements that apply to your product before use.



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The data in this brochure are typical values, not specifications. Please conduct a trial before using a product to confirm that it is suitable for the intended use. The uses described do not guarantee freedom from conflict with any patent. Regulatory information reflects the status at the date of issue and is not legal advice.