

Silico® MF2010-100,000 cSt Silicone Fluid

Technical Data Sheet (TDS)

Product Identification

Product Name: Silico® MF2010-100,000 cSt Silicone Fluid

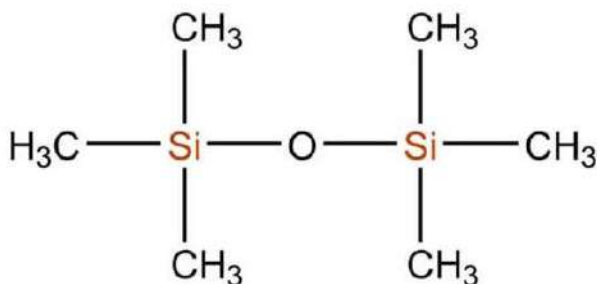
Chemical Description: Polydimethylsiloxane (PDMS)

CAS Number: 63148-62-9

Product Series: Silico® HV-B High Viscosity Silicone Fluid Series

Appearance: Clear, colorless, ultra-high viscosity liquid

Chemical Structure



Product Overview

Silico® MF2010-100,000 cSt Silicone Fluid is an ultra-high viscosity polydimethylsiloxane (PDMS) designed for demanding industrial applications requiring thick film formation, superior damping efficiency, thermal stability, and long-term lubrication performance.

With a nominal viscosity of 100,000 cSt at 25 °C, this silicone fluid forms a cohesive, load-bearing lubricating film with minimal shear flow, making it ideal for precision mechanical damping, heavy-duty lubrication, thermal control, and electrical insulation in extreme operating environments.

Typical Properties

Property	Typical Value	Test Method
Chemical Structure	Linear PDMS	—
Viscosity (25 °C)	100,000 cSt	ASTM D445
Density (25 °C)	~0.975 g/cm ³	ASTM D4052
Refractive Index (25 °C)	~1.404	ASTM D1218

Surface Tension (25 °C)	~21.5 mN/m	ASTM D971
Flash Point	>300 °C	ASTM D92
Pour Point	Approx. -50 °C	ASTM D97
Volatility	Very low	—
Solubility	Insoluble in water	—
Dielectric Properties	High resistivity	—
Chemical Stability	Excellent	—

Note: Typical values are not specifications and may vary slightly by production batch.

Key Performance Characteristics

Ultra-high viscosity for thick film lubrication and damping

Excellent thermal and oxidative stability

Superior lubricity and load-bearing capability

Low volatility and high flash point

Chemically inert and non-reactive

Stable dielectric insulation performance

Compatible with most metals, plastics, and elastomers

Typical Applications

Precision mechanical damping and motion control systems

Heavy-load, low-speed lubrication of bearings and seals

Thermal management systems requiring minimal fluid migration

Dielectric fluids for high-voltage and sensitive electronics

High-viscosity mold release agents and industrial coatings

6. Handling & Storage (TDS)

Store in original, sealed containers

Keep in a cool, dry, well-ventilated area

Avoid contamination with moisture or particulate matter

Shelf life: 24 months under recommended conditions