

# Silico® MF2010-100,000 cSt Silicone Fluid

## Technical Data Sheet (TDS)

### Product Identification

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

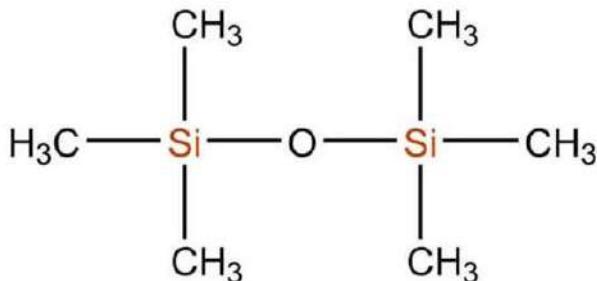
Chemical Description: Polydimethylsiloxane (PDMS)

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 <sup>3</sup>	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