

Silico® MF2010-10000 cSt Silicone Fluid

Technical Data Sheet (TDS)

Product Identification

Product Name: Silico® MF2010-10000 cSt Silicone Fluid

Chemical Name: Polydimethylsiloxane (PDMS)

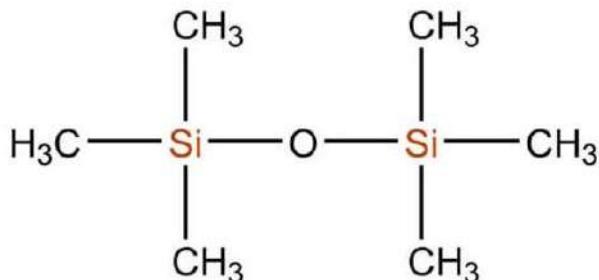
CAS Number: 63148-62-9

Molecular Structure: Linear dimethyl polysiloxane

Product Type: Ultra-high viscosity silicone fluid

Brand: Silico®

Chemical Structure



Product Description

Silico® MF2010-10000 cSt Silicone Fluid is a high-purity, linear PDMS engineered for ultra-high viscosity applications in industrial and engineering systems.

Its 10 000 cSt viscosity provides thick, durable fluid films for mechanical damping, heavy-duty lubrication, thermal management, and dielectric insulation. It exhibits excellent thermal stability, low volatility, chemical inertness, and strong dielectric performance, ensuring reliable long-term operation in demanding industrial environments.

Typical Physical & Technical Properties

Property	Typical Value
Appearance	Clear, colorless viscous liquid
Chemical Type	Polydimethylsiloxane (PDMS)

CAS Number	63148-62-9
Kinematic Viscosity (25 °C)	10 000 cSt
Density (25 °C)	~0.975 g/cm³
Refractive Index (25 °C)	~1.403
Surface Tension (25 °C)	~21.5 mN/m
Flash Point (Closed Cup)	≥ 320 °C
Pour/Freezing Point	~ -50 °C
Solubility	Insoluble in water; soluble in many organic solvents
Thermal Stability	Excellent
Dielectric Properties	High resistivity and stable insulation

Key Performance Characteristics

Ultra-high viscosity for long-lasting film formation
 Excellent thermal and oxidative stability
 Low surface tension and strong hydrophobicity
 Chemically inert; compatible with metals, plastics, elastomers
 Low volatility and high flash point for extended service life
 Stable dielectric properties for electrical insulation applications

Typical Applications

Mechanical damping and vibration control
 High-viscosity lubrication for bearings, seals, and heavy-load equipment
 Mold release agents for rubber, plastics, and metal die casting
 Thermal interface fluids and heat transfer applications
 Electrical insulation and dielectric media
 Surface treatment, coatings, and specialty fluid formulations

6. Handling, Storage & Packaging

Packaging: 180 kg steel drums, 950 kg IBC containers
 Storage Conditions: Store in original sealed containers in a cool, dry, ventilated area
 Shelf Life: Up to 24 months
 Handling: Follow standard industrial hygiene practices; avoid prolonged skin contact and spills