

SILISIL Silicone Oil 5000 cSt – Technical Datasheet

Description

SILISIL Silicone Oil 5000 cSt is a linear polydimethylsiloxane polymer with a viscosity of 5000 mm²/s at 25 °C.

The product is characterized by excellent thermal stability, outstanding dielectric properties, and a low viscosity variation over a wide temperature range.

Key Benefits

- Excellent thermal stability
- High resistance to oxidation and ageing
- Low surface tension
- Very good dielectric properties (high dielectric strength, low dissipation factor)
- Low pour point (usable at low temperatures)
- Good shear resistance
- Low viscosity variation with temperature
- Insoluble in water and alcohols
- Soluble in aromatic, aliphatic, and chlorinated solvents

Typical Properties (*Not for specification use*)

Property	Value
Appearance	clear, colorless liquid
Viscosity at 25°C	5000 cSt
Specific Gravity at 25°C	0.973 g/cm ³
Refractive Index at 25°C	1.404
Flash Point (Open Cup)	>300°C
Fire point	>350°C
Pour Point	-45°C
Surface Tension @ 25°C	21.1 dynes/cm
Vapor pressure at 200 °C	1.33 Pa
Thermal expansion coefficient (25–100 °C)	9.45 × 10 ⁻⁴ cm ³ /cm ³ ·°C
Specific heat (40–200 °C)	1.50 J/g·K
Thermal conductivity	0.16 W/m·K
Viscosity/temperature coefficient	0.62
Dielectric strength	18 kV/mm
Permittivity (25 °C)	2.80
Dissipation factor tg (25 °C, 100 kHz)	1 × 10 ⁻⁴
Volume resistivity	1 × 10 ¹⁵ Ω·m

Applications

- **Release agent:** mold release for plastics and metal castings
- **Lubricant:** lubrication of elastomers and plastics on metal
- **Hydraulic damping fluid**
- **Additive** in maintenance products (e.g., waxes, furniture and floor polishes)

Use Instructions

- Compatible with many organic solvents and propellants
- Emulsifiable with standard techniques
- Typical dosage:
 - 0.1–1% as a surface additive
 - 1–10% in skin creams or formulations

Storage & Handling

- Store in sealed original containers below 60°C
- Avoid eye contact. Refer to SDS for safety details

Disclaimer

The above information is based on current knowledge and experience. It is provided for guidance only and does not constitute a legally binding warranty. Compatibility and suitability for the intended use must be verified by the user through preliminary tests.