RISSO CHEMICAL
GLOBAL-ORIENTED CHEMICAL SUPPLIER

Product Information

PM-125 High Temperature Dielectric Silicone Fluid

Dielectric Strength: 400 volts/mil Service Temperature: 25°C to 300°C (closed system)

PM-125 High Temp Dielectric Fluid is recommended for service temps of 25°C to 300°C.

PM-125 Dielectric Silicone Fluid is a clear, colorless, and odorless silicone fluid that is classified as a Phenylmethylsiloxane (CAS#63148-52-7) with a viscosity of 125cSt @ 25C. It is formulated for use as a dielectric fluid /heat transfer medium for high temperature ranging from 25ºC to 300ºC (closed system*).

PM-125 Dielectric Silicone Fluid is characterized by its high dielectric strength, high flash point, high temperature stability, low vapor pressure, high resistance to oxidation, and hydrophobic nature (insoluble in water). It has a high VTC (viscosity-to-temperature coefficient) so its viscosity will lower quickly when heated, allowing for the fluid to be easily pumped.

PM-125 Dielectric Silicone Fluid has a dielectric strength of 400 volts/mil and a dielectric breakdown strength (2.5mm) ≥50kV**. PM-125 High Temperature Silicone Heat Transfer Fluid has** a Thermal Conductivity value of 0.00035 g cal/cm•sec•°C. Its specific heat value is 1.498k J/kg. K @ 40°C.

When compared to PDMS Silicones (PSF-Fluids), PM-125 Heat Transfer Fluid exhibits much higher thermal stability and resistance to oxidation. Although it is more expensive, it will provide a much longer service life.

***Applications include**: high temperature dielectric coolant, high temperature heat transfer fluid, high temperature bath fluid for laboratory research, high RI index fluid, high temperature silicone damping fluid, high temperature silicone lubricant,*

**Closed system baths are systems from which air has been excluded*

Dielectric Properties

Dielectric Strength.....400 volts/mil

Dielectric Constant 100 Hz
@25°C.....2.90
@150C.....2.57

Dissipation Factor 100 Hz
@25°C.....0.0005
@150°C.....0.007

Volume-Resistance
@25°C.....1.0 x 10^{14} ohm-cm
@150°C.....3.0 x 10^{12} ohm-cm

Thermal Properties

Specific Heat
@ 0°C.....1.418 kJ/kg K
@ 40°C.....1.498kJ/kg. K
@ 100°C.....1.615 kJ/kg. K.
@200°C.....1.812 J/kg. K

Thermal Conductivity
@25°C.....0.00035 g cal/cm•sec• °C
@ 50°C.....0.00036 g cal/cm•sec• °C

Thermal Gel Time (open system)
months @ 200°C.....14 months
hours @ 250°C.....1,200 hours
hours @ 260°C.....200 hours

Volume Expansion Properties

Volume Expansion vs. temperature
-18°C to 149°C.....0.00075
150°Cto 204°C.....0.00077
205°C to 260°C.....0.00080

Typical Properties

Viscosity @25C	Specific Gravity	Refractive Index	Pour Point	Flash Point	Surface Tension
125cSt	1.07	1.500	-51°C	315°C	24.5

Viscosity Properties

Viscosity/Temp Coefficient.....0.76
Viscosity @25C.....125cSt (mm2/sec)

Viscosity @ temperature
@ 99°C.....20cSt
@ 38°C.....84cSt
@ 25°C.....125cSt
@ -29°C.....22,000cSt

Packaging

1-gallon (3.78 liters) .....8 lbs / 4kg
5-gallon pail (18.9 liters) .....44 lbs / 20kg

55-gallon drum (208 liters) .....485 lbs / 220kg
F.O.B. Phila, PA U.S.A.

For More Info, Contact:
RissoChemical Co., Inc.
Daiyue Industrial Area, Taian, Shandong, China
Tel: 86-0538-5076188
Fax: 86-0538-5076188
Email: info@rissochemical.com
Web: www.rissochemical.com