RISSO CHEMICAL
GLOBAL-ORIENTED CHEMICAL SUPPLIER

Product Information

PM-50 Phenylmethyl Silicone Fluid

Phenylmethylsiloxane Fluid (low Phenyl content) Excellent Hi & Lo-Temperature Stability (CAS # 63148-52-7)

PM-50 Phenylmehthyl Silicone exhibits extraordinary wide temperature performance and low viscosity change at temperature.

PM-50 Phenylmethyl Silicone Fluid is a clear, colorless and odorless Phenylmethyl silicone [63148-52-7] (Phenylmethylsiloxane) with a viscosity of 50cSt @ 25°C. It replaces methyl groups found in conventional PDMS Silicone oils with low percentage of Phenyl groups. In doing so, thermal stability and resistance to oxidation are significantly increased.

PM-50 Silicone Fluid remains stable at 204°C (open to air) and 260°C (closed to air).

Unlike the PM-125 and PPM-500, which possess a high percentage of Phenyl content, the PM-50 also operates at lower temperatures without the high viscosity increase experienced by PM-125 and PPM-500 (see V.T.C .values). This makes the PM-50 an excellent fluid for circulating temperature baths and heat transfer applications that need to circulate and pump the fluid over a wide service temperature range.

The fluid is further characterized by its high flash point, high dielectric strength over a wide range of temperatures, stability at extreme pressures, high resistance to shear, excellent lubricity and inertness to virtually all substrates.

PM-50 Phenylmethyl Silicone Fluid is widely used in Flow Control, Temperature Control and Motion Control technologies. It is advantageous for instruments, gauges and devices that are subject to extreme temperatures and high pressures; especially for temperatures and environments that are too extreme for conventional PDMS Silicone oils.

Applications Include: high temperature bath fluid, low temperature bath fluid, high temperature heat transfer fluid, low temperature heat transfer fluid, high temperature damping fluid, high temperature circulating bath fluid, low temperature circulating bath fluid, high temperature dielectric coolant, high

Features

- Wide service temperature range
- Clear/Colorless/Odorless fluid
- Wide Service temp range
- Excellent Lubrication
- Low VTC Fluid …little viscosity change at temp
- Pourable fluid at low temperature
- High Resistance to Oxidation
- High Dielectric Strength
- High resistance to shear

Packaging

1-gallon……3.7kg net wt.

5-gallon pail……18.5kg net wt.

F.O.B. Phila, PA U.S.A.

Typical Product Data

Viscosity @ 25°C	Specific gravity	Viscosity/ Temp Coefficient	Pour Point °C	Flashpoint °C	Ignition Temp °C	Refractive Index	Surface Tension
50cSt	0.985	0.655	-57°C	275°C	482°C	1.425	25.0

Dielectric Properties

Electrical strength	Permittivity @ 100Hz	Permittivity @ 1MHz	Dissipation factor @ 100Hz	Dissipation factor @ 1MHz	Volume resistivity ohm.cm	Dielectric Constant
13.8kV/mm	2.77	2.77	0.0003	0.00005	1x10hz	2.77

Thermal Properties

Thermal Conductivity	Specific Heat @ 100°C	Coefficient of Expansion cc/cc/°C	Gel Time, hours 250°C in Air
0.15 W/(m.K)	0.405	0.00096	220-260 hrs.

Viscosity @ Temperature

Viscosity @ 99C……14cSt
Viscosity @ 38C……38cSt
Viscosity @ 25C……50cSt
Viscosity @ -29C……275cSt
Viscosity @ -48C……520cSt
Viscosity @ -57C……1,020cSt

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