

# PM-125 Phenylmethyl Silicone Fluid

*Phenylmethylsiloxane Fluid (clear- super hi-temperature stability) [CAS 63148-52-7]*



PM-125 Phenylmethyl Silicone exhibits high temperature stability and resistance to oxidation

**PM-125 Phenylmethyl Silicone** (Phenylmethylsiloxane) is a high content Phenylmethyl silicone CAS [63148-52-7] that is clear/colorless and odorless with a viscosity of 125cSt (centistokes) @ 25°C. It is formulated for a wide range of high temperature applications and is widely used as a high temperature bath fluid, high temperature heat transfer fluid and high temperature dielectric fluid.

PM-125 is characterized by its high thermal stability, high resistance to oxidation, enhanced shear resistance, excellent lubricity, high dielectric strength, high Refractive Index and inertness to virtually all substrates.

PM-125 has Phenyl content between 48 to 52%. Due to the high phenyl content, it exhibits much higher thermal stability and resistance to oxidation than conventional PDMS silicone fluids and other conventional bath fluids. In open systems (presence of air), PM-125 has a long-term service temperature range of 230°C. In closed systems (absence of air), it has a service temperature range of 300°C.

*Applications include: High Temperature Bath Fluid, High Temperature Heat Transfer Fluid, High Temp Hydraulic Fluid, High Refractive Index Fluid (High RI Fluid) for optical applications, High Temperature Damping Fluid*

### Product Data

Product Code	PM-125
Chemical Name	Phenylmethylsiloxane
CAS No	63148-52-7
Appearance	Clear, colorless and odorless fluid
Viscosity@ 25C	125cSt
Minimum order	1-gallon (3.785 liters)

### Typical Properties

Specific Gravity	Refractive Index	Pour Point	Flash Point	Surface Tension dynes cm @ 25°C
1.07	1.500	-51°C	315°C	24.5

### Thermal Properties

<b>Specific Heat</b>	
@ 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
<b>Thermal Conductivity</b>	
@25°C.....	0.00035 g cal/cm•sec• °C
@ 50°C.....	0.00036 g cal/cm•sec• °C
<b>Thermal Gel Time (open system)</b>	
months @ 200°C.....	14 months
hours @ 250°C.....	1,200 hours
hours @ 260°C.....	200 hours

### Viscosity to Temperature

Viscosity/Temp Coefficient.....	0.76
Viscosity @25C.....	125cSt (mm2/sec)
<b>Viscosity @ temperature</b>	
@ 99°C.....	20cSt (mm2/sec)
@ 38°C.....	84cSt (mm2/sec)
@ 25°C.....	125cSt (mm2/sec)
@ -29°C.....	22,000cSt (mm2/sec)

### Features

- Thermal Stability at 250°C open system
- Service range: 25°C to 230°C (open system)
- Service range: 25°C to 300°C (closed)
- High Oxidation Resistance
- High Temperature bath fluid for laboratory research apparatus and instruments.
- High Dielectric strength –dielectric fluid in capacitors
- High Temperature Heat Transfer Fluid
- High Temperature Lubricant
- High RI Fluid (High RI Fluid) for optics & LED
- High temperature damping fluid.

\*Note: although PM-125 has a low pour point, it has a High VTC... its viscosity will increase significantly at lower temperatures

### Packaging

1-gallon.....	8.8 lbs / 4kg
5-gallon pail.....	44 lbs / 20kg
55-gallon drum.....	485 lbs / 220kg
Terms: F.O.B. Phila, PA 19135	

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