



PM-50 Silicone Wide Service Temperature Bath Fluid

Recommended Operating Temperature: -40°C to 204°C (open system) / -40°C to 260°C (closed system)



PM-50 Silicone Bath Fluid exhibits a wider service temperature range than conventional PDMS silicone oils.

PM-50 Silicone Bath Fluid is a clear, colorless and odorless Phenylmethyl silicone oil / Phenylmethylsiloxane [CAS# 63148-52-7] with a viscosity of 50cSt @ 25°C. It is formulated for high temperature and provides long-term stability at service temperatures of -40°C to 204°C (open to air) and -40°C to 260°C (closed to air).

PM-50 Silicone Bath Fluid is characterized by its low viscosity, low pour point (-57°C), high flash point (>275°C), wide service temperature range, high dielectric strength, low vapor pressure and inertness to virtually all substrates.

Unlike high phenyl content fluids (PM-125) which thicken very quickly at low temperatures, PM-50 has a low V.T.C. (viscosity-to -temperature coefficients). At low temperatures, its viscosity will not thicken significantly. This is critical; especially for baths systems which need to pump and circulate.

In addition, Clearco Phenylmethyl Silicones exhibit higher oxidation resistance, greater thermal stability and better shear resistance than standard silicones.

Bath Applications include: high temperature open system baths, high temperature closed system baths, constant temperature baths, high temperature circulating baths, high temp closed loop baths, high temperature heat transfer baths, high temperature fluids for laboratory research apparatus and instruments.

Features

- Wide service temperature range
- Clear/Colorless/Odorless Fluid
- Low VTC Fluid ...little viscosity change at temp
- High Resistance to Oxidation
- High Dielectric Strength over wide range of temperatures and frequencies
- High resistance to shear
- Excellent Lubrication
- Inert to virtually all bath components

Packaging

1-gallon.....	3.7kg
5-gallon pail.....	18.5kg

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

Typical Product Data

Viscosity @ 25°C	Specific gravity	Viscosity/Temp Coefficient	Pour Point °C	Flashpoint °C	Refractive Index	Surface Tension
50cSt	0.985	0.61	-57°C	275°C	1.425	25.0

Thermal Properties

Thermal conductivity	Coefficient of expansion, 1/K, from 1 to 100°C	Specific heat @ 100°C	Gel Time, hours 250°C in air	Auto-Ignition Temp °C
0.15 W/(m.K)	0.00096	0.405	220-260 hrs.	482°C

Dielectric Properties

Electrical strength	Permittivity @ 100Hz	Permittivity @ 1MHz	Dissipation factor @ 100Hz	Dissipation factor @ 1MHz	Volume resistivity	Dielectric Constant
13.8kV/mm	2.77	2.77	0.0003	0.00005	1x10 ¹² ohm.cm	2.77

Viscosity @ temp

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

For More Info, Contact:

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