



PSF-5cSt Dielectric Silicone Fluid

Dielectric Strength: 375 volts/mil Operating Temperature Range: -70°C to 150°C (closed system)



PSF-5cSt Dielectric Silicone Fluid provides high dielectric strength over a wide service temp range.

PSF-5cSt Dielectric Silicone Fluid is a clear, colorless and odorless low-viscosity linear Polydimethylsiloxane (CAS # 63148-62-9) with a viscosity of 5cSt @ 25°C.

PSF-5cSt Dielectric Silicone Fluid is characterized by its high dielectric strength, low pour point, low temperature stability, wide service temperature range, low viscosity change at temperature (low V.T.C.), low surface tension, long service life, and hydrophobic nature (insoluble in water).

PSF-5cSt Dielectric Silicone Fluid has a dielectric strength of 375 volts/mil and a dielectric breakdown strength (2.5mm) ≥ 35 kV. **PSF-5cSt Dielectric Silicone Fluid** has a Thermal Conductivity value of 0.12 W/m °C or 0.00028 g cal/cm²sec °C. Its specific heat value is 1.8 J/g °C (0.390 cal/g/°C @ 25°C).

PSF-5cSt Dielectric Silicone Fluid has a low viscosity-temperature coefficient or V.T.C. (viscosity @99°C \approx viscosity @ 38°C). Thus, it will not exhibit a wide viscosity increase at the lower temperatures. For example, at -40°C, its viscosity increases to only 40cSt. This is critical for baths that have pumping systems that cannot operate with higher viscosity fluids.

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

Specifications

Chemical Name	Polydimethylsiloxane
CAS #	63148-62-9
Appearance	Clear, colorless, odorless fluid
Viscosity Class	Low
Non-Flammable	Yes
Thermally Stable	Yes

Viscosity @ temperature

Viscosity-Temperature-coefficient	...0.54
Viscosity @ 25°C	.....5cSt (centistokes)
Viscosity @ 0°C	.....8cSt
Viscosity @ -20°C	.....14cSt
Viscosity @ -40°C	.....40cSt

Dielectric Properties

Dielectric Strength	.....375 volts/mil
Dielectric breakdown strength (2.5mm) ≥ 35 kV
Dielectric Constant (50Hz)	.....2.60 @ 25°C
Dielectric Constant (100Hz)	.....2.59 @ 25°C 2.24 @ 150°C
Dissipation Factor (100Hz)	
@ 25°C	.....0.0004
@ 150°C	.....0.0004
Volume Resistance (ohm-cm)	
@ 25°C	.....1.0×10^{15}
@ 150°C	.....1.0×10^{13}

Packaging: 5 Centistokes

1-gallon pail	.....3.45kg
5-gallon pail	.....17.25kg
4 x 5-gallon pails	
55-gallon drum	.....190kg
F.O.B. Phila, PA	

Typical Product Data

Specific Gravity	Viscosity-Temp Coefficient	Flash Point	Boiling Point	Pour Point	Refractive Index	Thermal Expansion cc/cc °C	Thermal Conductivity g/cal/cm/sec °C	Specific Heat cal/g/°C	Surface Tension
0.918	0.54	135°C	>200°C	-90°C	1.3970	0.00109	0.00028	0.390	19.7

Typical Product Data (cont'd)

Vapor Density (air = 1)	Vapor Pressure @ 25°C	Molecular weight
>1	1mmHg	770

For More Information, Contact:

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