

PSF-10cSt Dielectric Silicone Fluid

Dielectric Strength: 375 volts/mil Operating Temperature Range: -60°C to 200°C (closed system)



PSF-10cSt Dielectric Silicone Fluid is an excellent choice for systems that require a low viscosity fluid and high dielectric strength.

PSF-10cSt Dielectric Silicone Fluid is a clear, colorless and odorless low-viscosity linear Polydimethylsiloxane (CAS # 63148-62-9) with a viscosity of 10cSt @ 25°C.

PSF-10cSt 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-10cSt Dielectric Silicone Fluid has a dielectric strength of 375 volts/mil and a dielectric breakdown strength (2.5mm) ≥ 50 kV. **PSF-10cSt Dielectric Silicone Fluid** has a Thermal Conductivity value of 0.00032 g/cal/cm/sec °C. Its specific heat value is 0.360 cal/g/°C @ 25°C.

PSF-10cSt Dielectric Silicone Fluid has a low viscosity-temperature coefficient or V.T.C. (viscosity @99°C ÷ viscosity @ 38°C). The lower the VTC, the lower the viscosity changes at temperature. Thus, its viscosity will not significantly increase even at extremely low temperatures. For example, at -40°C, its viscosity increases to only 75cSt.

Applications include: low temperature heat transfer fluid, low temperature bath fluid, dielectric fluid, calibration bath fluid

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

Specifications

Product code	PSF-10cSt
Chemical Family	PDMS Silicone
Chemical Name	Polydimethylsiloxane
CAS#	63148-62-9
Appearance	Clear, colorless, odorless
Non-Flammable	Yes
Hydrophobic	Yes
Minimum Order	1-gallon (3.785 liters)

Dielectric Properties

Dielectric Strength	375 volts/mil
Dielectric breakdown strength (2.5mm).....	≥ 50 kV
Dielectric Constant (50Hz).....	2.68 @ 25°C
Dielectric Constant (100Hz).....	2.64 @ 25°C
Dielectric Constant (100Hz).....	2.28 @ 150°C
Dissipation Factor (100Hz)	
@ 25C.....	0.00002
@ 150C.....	0.00016
Volume Resistance (ohm-cm)	
@ 25°C.....	1.0×10^{15}
@ 150°C	5×10^{13}

Typical Product Data

Specific Gravity	Refractive Index	Pour Point	Flash Point (closed cup)	Boiling Point	Surface Tension dynes cm @ 25°C
0.935	1.3990	-70°C	163°C	>200 °C	20.1

Thermal Properties

Thermal Conductivity @ 25°C g/cal/cm/sec °C	Thermal Expansion cc/cc °C	Specific Heat @ 25°C cal/g °C	Volatile content @ 70°C
0.00032	0.00108	0.360	0.68%

Packaging

1-gallon (3.78 liters)	3.52kg
5-gallon pail (18.9 liters)	17.6kg
55-gallon drum (208 liters)	190kg
F.O.B. Phila, PA U.S.A.	

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