



PSF-20cSt Silicone Bath Fluid

Operating Temperature Range: -50°C to 120°C (open system) / -50C to 220°C (closed system)



PSF-20cSt Bath Fluid is effective in both low and medium temp baths and heat transfer applications.

PSF-20cSt Silicone Bath Fluid is a clear, colorless, odorless low-viscosity linear Polydimethylsiloxane (CAS # 63148-62-9) with a viscosity of 20cSt @ 25C. It is widely used as a low and medium temperature baths fluid / heat transfer fluid.

In open system baths, PSF-20cSt Silicone Bath Fluid has an operating temperature range of -50°C to 120°C. In closed system*, the operating temperature range is wider due to the absence of air. The closed system operating temperature range is -50°C to 220°C.

PSF-20cSt Silicone Bath Fluid has a low viscosity-temperature coefficient or V.T.C. (viscosity @99°C ÷viscosity @ 38°C). Thus, its viscosity will not significantly increase even at extremely low temperatures. For example, at -40°C, its viscosity increases to only 125cSt. This is critical for baths that have pumping systems that cannot operate with higher viscosity fluids.

Bath Applications include: open system baths, closed system baths, constant temperature baths, circulating baths, chiller baths, low temperature refrigerated baths, closed loop baths, heat transfer medium

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

Specifications

Chemical Name	Polydimethylsiloxane / PDMS Silicone Oil
CAS #	63148-62-9
Appearance	Clear, colorless & odorless liquid
Viscosity Class	Low
Non-Flammable	Yes
Thermally Stable	Yes
Minimum Order	1-gallon (3.785 liters)

Features

- Low Viscosity: Easy to pump/circulate fluid
- Clear Fluid: easy to see instruments in the bath
- Hydrophobic: insoluble with water
- Compatible with virtually all o-rings, gaskets, hoses, valves and seals*
- Low V.T.C...viscosity remains low even at very low temps
- Low Pour Point: -65°C
- Flash Point: 232°C
- High Resistance to Oxidation

*Not recommended for silicone o-rings...may cause swelling.

Typical Properties

Viscosity @ 25°C	Specific Gravity	Refractive Index	Pour Point	Flash Point	Boiling Point	Viscosity-temp coefficient	Surface Tension
20cSt	0.950	1.4000	-65°C	232°C	>200 °C	0.59	20.6

Thermal Properties

Thermal Conductivity @ 25°C g cal/cm•sec• °C	Thermal Expansion cc/cc °C	Specific Heat @ 25°C J/g °C
0.00034	0.00107	1.6

Dielectric Properties

Dielectric strength volts/mil	Volume Resistivity	Dielectric constant 50Hz
375	1.0 x 10 ¹⁵	2.72

Packaging

1-gallon (3.78 liters).....	3.6kg net wt.
5-gallon pail (18.9 liters).....	18kg net wt.
55-gallon drum (208 liters).....	190kg net wt.
F.O.B. Phila, PA U.S.A.	

Viscosity @ temperature

Viscosity-Temperature-coefficient.....	0.59
Viscosity @ 25°C.....	20cSt (centistokes)
Viscosity @ 0°C.....	35cSt
Viscosity @ -20°C.....	60cSt
Viscosity @ -40°C.....	125cSt

For More Info, Contact:

Clearco Products Co., Inc.

15 York Road
Willow Grove, PA 19090
U.S.A.

Tel: (215) 366-7860

Fax: (215) 366-7862

Email: info@clearcoproducts.com

Web: www.clearcoproducts.com