



DPDM-400 High Temperature Silicone Bath Fluid

Operating Temperature Range: 25°C to 250°C (open system) / 25°C to 300°C (closed system)



DPDM-400 High Temp Silicone Fluid remains stable at 250C (open system) & 300°C (closed system)

DPDM-400 High Temperature Silicone Bath Fluid is a Dimethyl-Diphenylsiloxane Silicone (CAS # 68083-14-7) with a viscosity of 400cSt @ 25C.

DPDM-400 High Temperature Silicone Bath Fluid is characterized by its high flash point, high service temperature range, low vapor pressure, high resistance to oxidation, high dielectric strength and high resistance to shear,

In open system baths (presence of air), **DPDM-400 High Temp Silicone Bath Fluid** has an operating temperature range of 25°C to 250°C.

In closed system baths*, the operating ranges from 25°C to 300°C.

When heated, its viscosity will lower very quickly which makes it easy to pump and circulate the fluid at higher temps. However, the fluid will conversely thicken very quickly when chilled. Although it has a pour point of -30°C, we do not recommend it for low temperature bath applications due to its acutely higher viscosities at lower temperatures (see Viscosity/temp specs).

When compared to conventional PDMS Silicones (PSF-Fluids), **DPDM-400 High Temp Silicone Bath Fluid** exhibits much higher thermal stability as well as resistance to shear and resistance to oxidation.

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.

Properties

Appearance:	clear, colorless, odorless fluid
Pour Point °C.....	-30°C
Flashpoint.....	315°C
Specific Gravity.....	1.07
Refractive index.....	1.505
Surface Tension (dynes/cm).....	25.2

Features

- Excellent High Temp Performance
- High Oxidation Resistance
- High Temperature bath fluid for laboratory research apparatus and instruments.
- High Dielectric strength –dielectric fluid in capacitors
- High Temperature heat transfer applications
- Compatible with virtually all O-rings, gaskets, valves, seals, and hoses *

* May cause swelling in silicone O-rings

Thermal Properties

Specific Heat @25C.....	0.35 cal/g °C,
Thermal Conductivity.....	0.00032 g cal/cm•sec °C
Thermal Expansion.....	0.00073 cc/cc °C
<u>Thermal Gel Time (open system)</u>	
@ 250°C.....	1,500 to 2,000 hours
@ 260°C.....	>200 hours
<u>Volatility, % wt loss</u>	
24 hours @ 150°C.....	max 0.3%

Dielectric Properties

Breakdown Voltage (KV/2.5mm).....	>50
Dielectric Constant (50 Hz).....	2.88
Dissipation Factor (50 Hz).....	<0.0005

Packaging

1-gallon (3.78 liters)	4kg net wt.
5-gallon pail (18.9 liters)	20kg net wt.
55-gallon drum (208 liters)	200kg net wt.

Viscosity/Temp Specs.

Viscosity/Temp Coefficient.....	0.82
Viscosity @25°C.....	400cSt / mm2/sec
<u>Viscosity @ temperature</u>	
@ 250°C.....	7cSt
@ 200°C.....	11cSt
@ 100°C.....	46cSt
@ 50°C.....	167cSt
@ 25°C.....	400cSt
@ 0°C.....	1,770cSt
@ -25°C.....	24,800cSt

For More Info, Contact:

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