



Clearco DPDM-400 Diphenyl-Dimethyl Silicone

Diphenyl –Dimethyl Silicone Bath Fluid...stability between –20°C to 250°C (open system)



Clearco DPDM-400 Silicone Bath Fluid remains stable from –30°C to 250°C.

Clearco DPDM-400 Silicone is a clear, Medium content phenyl silicone belonging to the phenyl silicone group. It is classified as a Dimethyl-Diphenylsiloxane or Diphenyl-Diphenylsiloxane Copolymer (CAS # 68083-14-7).

Clearco DPDM-400 exhibits much higher temperature stability than standard dimethyl silicones. In open systems (presence of air), Clearco DPDM-400 will remain stable at 250°C for 1,500 to 2,000 hours. In closed system, it exhibits higher thermal stability.

Due to its high temperature stability, Clearco DPDM-400 is recommended as a hi-temp bath fluid for temperatures above 320°F / 160°C open system – the point at which dimethylpolysiloxanes start to break down and gel.

In addition, Clearco DPDM-400 Silicone exhibits higher oxidation resistance, greater thermal stability, and enhanced shear resistance than standard silicones. Other applications include: High Temp Damping Fluid –High Temperature Bath Fluid for laboratory instruments and gauges –Hydraulic Fluid – Dielectric Coolant - Heat Transfer Fluid.

SPECIFICATIONS

Chemical Name	Diphenyl-Dimethylsiloxane
CAS #	68083-14-7
Appearance	Clear, colorless, odorless
Non-Flammable	Yes
Thermal Stability	Excellent
Minimum Order	1-gallon
Drums	200kg

FEATURES

- Wide Temperature Range: -20°C to 250°C
- Long Term stability: -20°C to 250°C
- High Temp Performance
- High Temperature Bath Fluid
- Enhanced Lubrication
- Non-Flammable
- Enhanced Resistance to Shear
- High Oxidation Resistance
- High Temperature Heat Transfer Applications
- Dielectric Coolant

Typical Product Data

Viscosity @ 25°C	Viscosity/ Temp Coefficient	Specific heat	Pour Point	Gel Time, hours (250°C in Air)	Molecular weight
400cSt	0.82	0.35	<-30°C	1,500-2,000 hrs.	1,600 to 2,400

Specific Gravity	Refractive Index	Surface Tension	Flashpoint	Volatile content (% @ 105°C/24h)
1.07	1.505	25.2	>300°C	<0.5

Thermal conductivity (cal/cm sec °C)	Thermal Expansion Coefficient (cc/cc/°C)	Dielectric Constant	Dissipation Factor (50Hz)	Breakdown voltage
3.2 x 10 ⁻⁴	0.00073	2.88	<0.0005	>50

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