

Product Information

DPDM-200 Diphenyl-Dimethyl Silicone Fluid

Diphenyl-Dimethylsiloxane Silicone Fluid (CAS # 68083-14-7)



DPDM-200 is characterized by its high thermal stability and high Refractive Index

DPDM-200 Silicone Fluid is a Dimethyl-Diphenylsiloxane (Diphenyl-Dimethylsiloxane) [CAS # 68083-14-7] with a nominal viscosity of 200cSt @ 25°C. It is characterized by its high flash point, high service temperature range, low vapor pressure, high resistance to oxidation and high resistance to shear. DPDM-200 is an excellent high temperature bath fluid, high temperature heat transfer fluid and high temperature damping fluid.

DPDM-200 replaces conventional methyl groups with Diphenyl groups. In doing so, thermal stability and resistance to oxidation are significantly increased. In open system baths (presence of air), **DPDM-200 Diphenyl Fluid** has an operating temperature range of 25°C to 250°C. In closed system baths*, the operating temperature ranges from 25°C to 300°C.

Although it has a pour point of -40°C, DPDM-200 is not recommended for low temperature applications due to its acutely higher viscosities at lower temperatures. However, when heated, DPDM-200's viscosity will lower quickly.

With the presence of Diphenyl groups, DPDM-200 has a higher Refrractive Index value (RI value) than conventional PDMS fluids. The high RI value makes it widely used for optic applications that require the high RI value.

Applications include: high temperature open system baths, high temperature closed system baths, constant temperature baths, high temperature circulating baths, high temperature baths, high temperature heat transfer baths, high temperature fluids for laboratory research apparatus and instruments.

Specifications

| Chemical Name | Diphenyl-Dimethylsiloxane |
|-------------------|----------------------------------|
| CAS No. | 68083-14-7 |
| Appearance | Clear, colorless, odorless fluid |
| Non-Flammable | Yes |
| Thermal Stability | Excellent |
| Minimum Order | 1-gallon pail (3.95kg) |

Features

- High Service Temperature
- High Damping Action
- High Oxidation Resistance
- High Temperature Heat Transfer Application
- High Refractive Index
- Dielectric Coolant

Typical Product Data

| Viscosity @ 25°C | Viscosity/ Temp Coefficient | Pour Point | Gel Time, hours (250°C in Air) | Molecular weight |
|------------------|--------------------------------|------------|--------------------------------|------------------|
| 160 to 230cSt | 0.78 | -40°C | 1,500-2,000 hrs. | 1,600 to 2,400 |

| Specific Gravity | Refractive Index | Surface Tension | Dielectric Constant | Flashpoint | Ignition Temp °C |
|------------------|------------------|-----------------|---------------------|------------|------------------|
| 1.05 | 1.490 | 24.5 | 2.83 | 285°C | 488°C |

Packaging

| rackagiiig |
|-------------------------|
| 1-gallon3.95kg |
| 5-gallon pail19.75kg |
| 55-gallon drum200kg |
| F.O.B. Phila, PA U.S.A. |

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