



## Product Information

### Super High Viscosity Silicone

Damping Fluids (300,000cSt, 500,000cSt, 600,000cSt, 1,000,000cSt, 2.5 million & 20 million cSt)

CAS # 63148-62-9 Polydimethylsiloxane Meet VV-D-1078 "Silicone as Damping Fluid"



Super Hi-Viscosity Silicones Fluids are extremely viscous fluids that meet VV-D-1078 "Silicone as Damping Fluid" and are used in a wide range of damping applications.

**Super High Viscosity Silicone Damping Fluids** are ultra-high viscosity linear PDMS Silicone Fluids / Polydimethylsiloxane (CAS#63148-62-9) fluids with a viscosities of 300,000cSt, 500,000cSt, 600,000cSt, 1 million cSt, 2.5 million cSt and 20 million (centistokes) @ 25°C.

**Super High Viscosity Silicone Damping Fluids** are hydrophobic fluids that are characterized by their wide service temperature range, high oxidation resistance, ultra-high viscosity, high dielectric strength, high resistance to shear, low pour points, low V.T.C. (little viscosity change even at extremely low temperature), excellent lubrication & high damping action.

**Super High Viscosity Silicone Damping Fluids** meet Federal Spec VV-D-1078 "Silicone as Damping Fluid". They are used in a wide range of military and industrial liquid filled gauges, level controllers, rotary dampers, temperature and process recorders, control valves, calibration equipment, flow meters, thermostats, dashpots, monitoring systems avionic gauges and aviation instruments to dampen vibration, dampen pulsation, and dampen torque.

**Super High Viscosity Silicone Damping Fluids** are particularly effective for use in instruments and gauges that will operate at a wide service temperature range and require the highest level of damping available. The fluids are hydrophobic and prevent humidity from entering the gauge/instrument housing. This is very important. At low temperatures, water condensation can freeze and cause damage to the sensitive parts within the gauge/instrument housing. Ultimately, **Silicone Damping Fluids** will extend the service life of the equipment that it fills and provide more accurate readings even in the harshest of conditions.

#### Specifications

Chemical Name	Polydimethylsiloxane
CAS #	63148-62-9
Federal Spec	VV-D-1078 "Silicone as Damping Fluid"
Appearance	Clear. Colorless, odorless fluid
Non-Flammable	Yes

#### Dielectric Properties

Dielectric constant Hz	Dielectric Strength volts/mil
2.75	400

#### Features

- Dampen vibration in gauges, instruments, meters and avionic instruments
- Protects internal components against vibration, freezing and corrosion.
- Extends service life of gauges, instruments, meters and avionic instruments.
- Wide Service Temperature Range
- High Oxidation resistance
- Low viscosity change at temperature (low V.T.C.)
- Inert to virtually all o-rings, gaskets, seals and valves \*
- Meet VV-D-1078 Silicone as Damping Fluid
- High Dielectric Strength

\* not recommended for Silicone o-rings due to possibility of swelling

#### Typical Product Data

Viscosity	Specific Gravity	Refractive Index	Pour Point	V.T.C.	Flash Point	Surface Tension	Thermal Expansion cc/cc °C	Thermal conductivity g/cal/cm/sec °C	Molecular weight
300,000cSt	0.977	1.4035	-41°C	0.61	321°C	21.5	0.00092	0.00038	204,000
500,000cSt	0.978	1.4035	-41°C	0.61	321°C	21.6	0.00092	0.00038	>230,000
600,000cSt	0.978	1.4035	-41°C	0.61	321°C	21.6	0.00092	0.00038	260,000
1,000,000cSt	0.978	1.4035	-39°C	0.62	321°C	21.6	0.00092	0.00038	308,000
2,500,000cSt	0.978	1.4035	-38°C	0.62	321°C	21.6	0.00092	0.00038	423,000
20,000,000cSt	0.979	1.4035	-35°C	0.62	321°C	21.6	0.00092	0.00038	>500,000

#### Packaging

1-gallon.....3.5kg net wt.  
5-gallon pail.....17kg net wt.  
55-gallon drum.....200kg net wt.

F.O.B. Phila, PA U.S.A.

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