

**FILL FLUID SPECIFICATIONS – DC200 SILICONE**

Temperature Limits:	
At Atm Pressure:	-45 to 205°C (-49 to 400°F)
Max Temp at Min Pressure:	125°C / 257°F @ 20 mm HgA
Viscosity at 25°C(77°F):	9.5 cs
Specific Gravity @ 25°C(77°F):	0.934
Coefficient of Thermal Expansion:	0.00108 cc/cc/C (0.00060 cc/cc/F)

Chemical Name:	Polydimethylsiloxane polymer
Chemical Composition:	(CH <sub>3</sub> ) <sub>3</sub> SiO[SiO(CH <sub>3</sub> ) <sub>2</sub> ] <sub>n</sub> Si(CH <sub>3</sub> ) <sub>3</sub>
CAS Number:	63148-62-9

Description/ Applications: DC200 is a good general purpose fill fluid for industrial applications and is used in over half of all remote seal assemblies. DC200 is made up of a mixture of linear polymers with an average viscosity of 10 cs. This fluid has a broad temperature range to cover ambient and process conditions and has a low viscosity for good time response. Silicone fluids have a unique combination of properties that give superior performance in a wide variety of applications. Silicone fluids are quite different from other fluids. Hydrocarbon fluids are based on a backbone of carbon-to-carbon atoms, while silicone fluids have a backbone of silicon-oxygen linkages similar to the Si-O linkages in high temperature inorganic materials (quartz, glass and sand). Silicones provide excellent thermal stability and low vapor pressure. Dow Corning states its primary use is as an ingredient in cosmetic and personal care product formulations, but neither represents or tests this fluid for medical or pharmaceutical applications. Syltherm 800 heat-transfer fluid has been used in seal systems, but was obsoleted since it was found to have no long term advantages over standard DC200.

**DC200 VAPOR PRESSURE RESULTS (ASTM E1782)**

