



SYLTHERM XLT

Silicone Heat Transfer Fluid

SYLTHERM XLT[†] heat transfer fluid is a specially formulated, high performance silicone polymer designed for use as a low temperature, liquid phase heat transfer medium. It offers outstanding low temperature heat transfer and pumpability, plus excellent thermal stability. SYLTHERM XLT fluid has essentially no odor, is low in acute oral toxicity, and is not listed as reportable under SARA Title III, Section 313^{††}.

Recommended use temperature range: -100°C (-150°F) to 260°C (500°F)

Suitable applications: Single fluid process heating and cooling systems in the pharmaceutical and fine chemical industries.

For health and safety information for this product, contact your Dow sales representative or call the number for your area on the second page of this sheet for a Material Safety Data Sheet (MSDS).

Typical Properties of SYLTHERM XLT Fluid¹

Composition: Dimethyl Polysiloxane

Color: Crystal Clear Liquid

Property	SI Units	English Units
Viscosity @ 25°C (77°F)	1.4 mPa·s	1.4 cp
Flash Point ² , Closed Cup	47°C	116°F
Flash Point ³ , Open Cup	54°C	130°F
Autoignition Temp., ASTM D-2155	350°C	662°F
Acid Number, Typical		0.01
Freeze Point	-111°C	-168°F
Density @ 25°C (77°F)	852 kg/m ³	7.1 lb/gal
Specific Gravity @ 25°C (77°F)		0.85
Heat of Combustion	32,800 kJ/kg	14,100 Btu/lb
Average Molecular Weight		317
Estimated Critical Temperature	327°C	620°F
Estimated Critical Pressure	12.16 bar	12 atm
Estimated Critical Volume	3.9 l/kg	0.063 ft ³ /lb

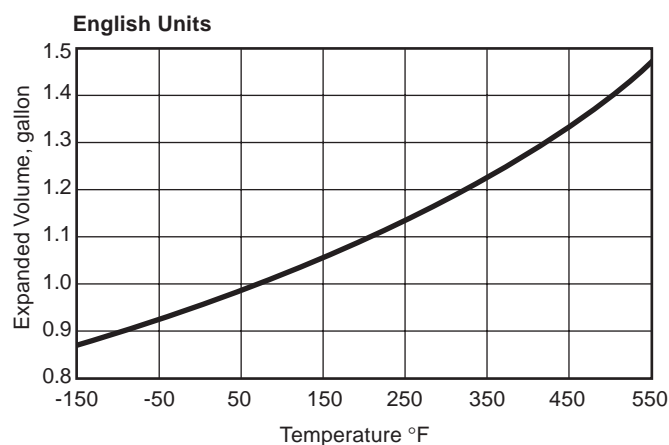
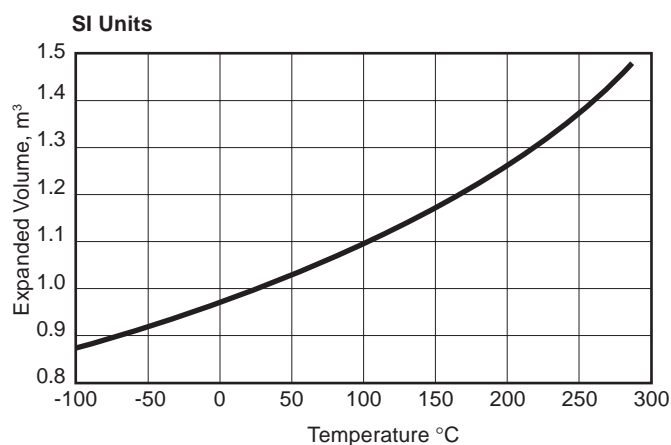
¹ Not to be construed as specifications.

² ASTM D92

³ ASTM D93

^{††} You may need to comply with similar or additional regulations in other countries.

Thermal Expansion of SYLTHERM XLT Fluid



SYLTHERM XLT Synthetic Organic Heat Transfer Fluid

Saturated Liquid Properties of SYLTHERM XLT Fluid (SI Units)

Temperature °C	Specific Heat kJ/kg K	Density kg/m ³	Thermal Conductivity W/m K	Viscosity mPa·s	Vapor Pressure kPa
-100	1.520	978.5	0.1341	78.6	
-20	1.688	896.4	0.1192	3.1	
60	1.856	814.2	0.1019	0.80	1.8
140	2.024	732.0	0.0827	0.36	40.1
220	2.192	649.8	0.0620	0.22	261.9
280	2.318	588.2	0.0455	0.17	701.8

Saturated Liquid Properties of SYLTHERM XLT Fluid (English Units)

Temperature °F	Specific Heat Btu/lb·°F	Density lb/ft ³	Thermal Conductivity Btu/hr ft ² (°F/ft)	Viscosity cP	Vapor Pressure psia
-150	0.363	61.23	0.0776	90.2	
0	0.405	55.88	0.0686	2.97	
150	0.446	50.53	0.0581	0.74	0.3
250	0.474	46.96	0.0505	0.42	3.2
350	0.502	43.40	0.0424	0.28	15.2
450	0.530	39.83	0.0339	0.21	47.5
550	0.558	36.26	0.0250	0.16	113.6

For further information, call...

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NOTE: SYLTHERM heat transfer fluids are manufactured by Dow Corning Corporation and distributed by The Dow Chemical Company.

