

**SYLTHERM™ XLT****Product Type** Silicone heat transfer fluid**Applications**

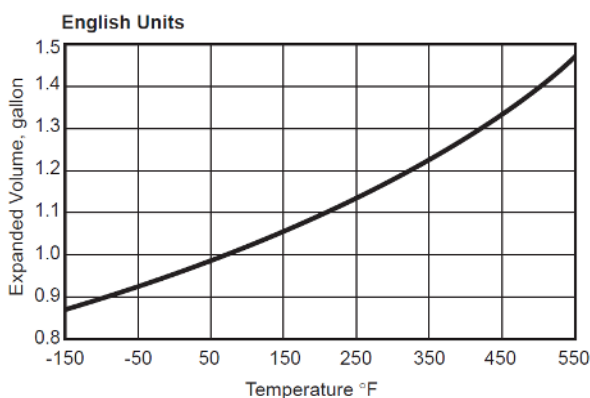
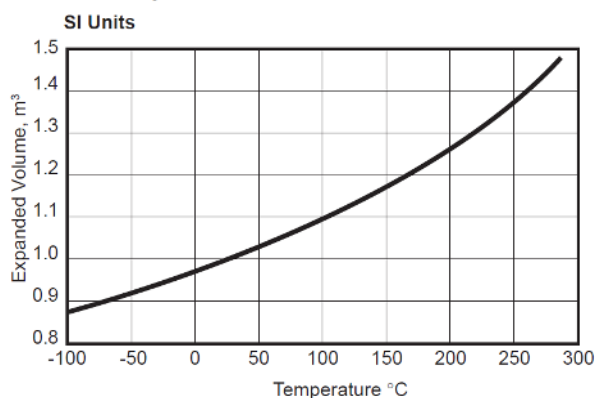
- Single-fluid process heating and cooling systems in the pharmaceutical and fine chemical industries.

Recommended Use Temperature Range -100°C (-150°F) to 260°C (500°F)**Description** 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.^{††}^{††}You may need to comply with similar or additional regulations in other countries.**Typical Properties†**

Composition		
Dimethyl Polysiloxane		
Color	Crystal-clear liquid	
Property	SI Units	English Units
Viscosity at 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 at 25°C (77°F)	852 kg/m ³	7.1 lb./gal.
Specific Gravity at 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.

[†]Not to be construed as specifications.²ASTM D92³ASTM D93

Thermal Expansion of SYLTHERM XLT Fluid



Saturation 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

Saturation 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	1.826	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

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