



# HEAT TRANSFER FLUIDS

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## XCELTHERM<sup>®</sup> SX800

Silicone based for high thermal stability and oxidative resistance at high operating temperatures up to 750°F (400°C) with a low start-up temperature of under -40°F (-40°C).

Key Operating Temperatures	XCELTHERM <sup>®</sup> SX800	
Bulk Operating Temperature, maximum	400°C	750°F
Maximum Film Temperature	427°C	800°F
Pour Point	-60°C	-76°F
Flash Point (Pensky Martens Closed Cup) (ASTM D93)	162°C	324°F
Flash Point by Cleveland Open Cup (ASTM D92)	177°C	350°F
Fire Point by Cleveland Open Cup	193°C	380°F
Autoignition Temperature	385°C	725°F

Physical Properties	XCELTHERM <sup>®</sup> SX800	
Appearance	Clear, colorless	
Odor	Characteristic	
Composition	Polydimethylsiloxane	
Kinematic Viscosity, mm <sup>2</sup> /s (cSt)		
at 25°C (77°F)	9.8	
at 40°C (104°F)	7.5	
at 100°C (212°F)	3.40	
Average Molecular Weight	1250 g/mol	
Moisture Content, maximum	100 ppm	
Density at 25°C (77°F)	936 kg/m <sup>3</sup>	(7.76 lbs/gal)
Specific Gravity at 25°C/25°C (77°F/77°F)	0.93	
Coefficient of Thermal Expansion at 200°C (392°F)	0.00098/°C	0.00054/°F
Refractive Index at 25°C (77°F)	1.399	
Dielectric Constant at 100 cycles at 23°C (73.4°F)	2.68	
Acid Number	0.00 mg·KOH/g	
Viscosity - Temperature Coefficient	0.56	
Heat of Combustion	28,659 kJ/kg	12,300 BTU/lb
Vapor Pressure at 600°F	596 kPa	86.5 psia
Critical Temperature	367°C	692°F
Critical Pressure	10.8 atm	10.9 bar
Critical Volume	0.0032 m <sup>3</sup> /kg	0.0515 ft <sup>3</sup> /lb
Specific Heat at 25°C (77°F)	1,507 J/(kg·K)	0.36 BTU/(lb·°F)
Specific Heat at 100°C (212°F)	1,658 J/(kg·K)	0.396 BTU/(lb·°F)
Thermal Conductivity at 40°C (104°F)	0.14 W/(m·K)	0.081 BTU/(hr·ft·°F)
Thermal Conductivity at 100°C (212°F)	0.12 W/(m·K)	0.0687 BTU/(hr·ft·°F)

Data represents typical laboratory samples and are not guaranteed for all samples.  
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