



# HEAT TRANSFER FLUIDS

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## XCELTHERM® SX500

XCELTHERM® SX500 is a polydimethylsiloxane-based fluid for laboratory/testing bath applications. XCELTHERM® SX500 can be used in open bath operating temperatures from ambient to 170°C (338°F), with outstanding oxidative stability properties. In closed systems, XCELTHERM® SX500 can be operated at temperatures from -40°C to 230°C (-40°F to 446°F), with excellent inherent thermal stability, assuring extended fluid life and optimal heat transfer efficiency.

### Key Operating Temperatures

Open Bath System Bulk Operating Range	-40°C to 170°C (-40°F to 338°F)
Closed Loop System Bulk Operating Temperature, maximum	-40°C to 230°C (-40°F to 446°F)
Pour Point, maximum	≤ -60°C (-76°F)
Flash Point by Cleveland Open Cup	346°C (655°F)
Fire Point by Cleveland Open Cup	368°C (694°F)
Autoignition Temperature	482°C (900°F)
Pumpability at 300 cSt	-41°C (-42°F)

### Physical Properties

Appearance	Clear, colorless
Odor	Characteristic
Composition	Polydimethylsiloxane
Kinematic Viscosity, mm <sup>2</sup> /s (cSt) at 40°C (104°F) at 100°C (212°F)	37 15.5
Average Molecular Weight, g/mol	3600 to 3800
Moisture Content, parts per million maximum	100 ppm
Density at 25°C (77°F)	961 kg/m <sup>3</sup> (8.0 lbs/gal)
Specific Gravity at 25°C/25°C (77°F/77°F)	0.960
Coefficient of Thermal Expansion at 200°C (392°F)	0.00105/°C (0.00055/°F)
Refractive Index at 25°C (77°F)	1.402
Dielectric Constant at 100 cycles at 23°C (73.4°F)	2.72
Acid Number	0.02
Viscosity - Temperature Coefficient	0.59
Heat of Combustion	6.1 kcal/g
Volatile Content at 150°C	< 0.5%

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