



# HEAT TRANSFER FLUIDS

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## XCEL THERM<sup>®</sup> 600

The most premium thermal oil available for use up to 600°F (315°C), has a longest life of any fluid of its type, is pure, non-toxic and odorless. Food contact rated, NSF (HT1) FDA. Recommended for food processing, processing of natural gas, packaging, plastic extrusion, chemical processing, micro concentrated solar power and many other applications.

### TYPICAL PROPERTIES

#### Key Operating Temperatures

Maximum Bulk Fluid Operating Temperature	600°F	316°C
Maximum Film Temperature	650°F	343°C
Flash Point (PMCC)(ASTM D93)(min)	352°F	178°C
Flash Point (COC)(ASTM D92)(min)	380°F	193°C
Fire Point (ASTM D92)(min)	421°F	216°C
Autoignition Temperature (min)	660°F	349°C
Pour Point	-20°F	-29°C
Pumpability, at 300 cSt (mm <sup>2</sup> /s)	2.3°F	-16.5°C
Normal Boiling Point, 10% Fraction	693°F	367°C

#### Physical Properties

Appearance	Water-white, clear liquid	
Odor	Faint, oily	
Composition	Radco-engineered hydrogenated white oil	
Kinematic Viscosity, at 104°F/40°C	15.5 cSt	
Average Molecular Weight	350 g/mol	
Critical Temperature	1007°F	542°C
Critical Pressure	220 psia	1.52 MPa
Critical Density	17.5 lb/ft <sup>3</sup>	280 kg/m <sup>3</sup>
Moisture Content (maximum)	300 ppm	
Density, at 25°C/77°F	7.1 lbs/gal	851 kg/m <sup>3</sup>
Specific Gravity @ 77°F/25°C	0.85	
Coefficient of Thermal Expansion, at 392°F/200°C	0.000495/°F	0.000892/°C
Heat of Vaporization at Maximum Use Temperature	91 BTU/lb	211.7 kJ/kg
Heat of Combustion	20,000 BTU/lb	46,520 kJ/kg
Moisture Content (maximum)	100 ppm	

\* Data represents typical laboratory samples and are not guaranteed for all samples