



## HEAT TRANSFER FLUIDS

700 Kingsland Drive  
Batavia, IL 60510  
USA  
Phone: (630) 232-7966  
Fax: (630) 232-7968  
[www.Radcoind.com](http://www.Radcoind.com)

# XCELTHERM<sup>®</sup> TPL – Typical Properties

Direct replacement for Hydrogenated Terphenyl based heat transfer fluids, chemically equivalent to Dowtherm<sup>™</sup> RP<sup>1</sup> and Therminol<sup>®</sup> 66<sup>2</sup>. Fouling resistant synthetic for low pressure systems operating up to 650°F (345°C). Recommended for oil and gas processing, chemical manufacturing, refining operations, low pressure thermal fluid systems, bio-products, polymer and resin production and many other applications.

Key Temperatures	
Maximum Bulk Fluid Operating Temperature	345°C (650°F)
Maximum Film Temperature	371°C (700°F)
Flash Point (PMCC) (ASTM D93) (min)	150°C (302°F)
Flash Point (COC) (ASTM D92) (min)	184°C (363°F)
Fire Point (ASTM D92) (min)	192°C (378°F)
Autoignition Temperature (ASTM E659) (min)	374°C (705°F)
Pour Point (ASTM D97) (max)	-12°C (10°F)
Pumpability, at 300 cSt	11°C (52°F)
Pumpability, at 2000 cSt	-3°C (27°F)
Normal Boiling Point	359°C (678°F)
Optimum use temperature (min to max)	0 - 345°C (30 - 650°F)

Physical Properties	
Appearance	Pale yellow liquid
Odor	Faint, Characteristic
Composition	Hydrogenated terphenyl
Moisture Content	≤ 150 ppm
Density at 77°F/25°C	1,007 kg/m <sup>3</sup> (8.40 lbs/gal)
Specific Gravity at 25°C/25°C (typical)	1.012
Kinematic Viscosity at 104°F/40°C	30.5 mm <sup>2</sup> /s (cSt)
Kinematic Viscosity at 212°F/100°C	4 mm <sup>2</sup> /s (cSt)
Coefficient of Thermal Expansion	0.000819/°C (0.000455/°F)
Total Acid Number (ASTM D664) (typical)	≤ 0.01 mg KOH/g
Acetone Insolubles	≤ 10mg/100ml

<sup>1</sup> Dowtherm is a registered trademark of Dow Chemical.

<sup>2</sup> Therminol is a registered trademark of Eastman Chemical

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