



**THERMAL
FLUID
SOLUTIONS**

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PRODUCT
INFORMATION

THERMINOL XLT HEAT TRANSFER FLUID

Therminol XLT is a synthetic liquid phase heat transfer fluid with excellent heat transfer and fluid properties for extremely low temperature applications. This fluid is ideally suited for single fluid heating and cooling systems. Therminol XLT is a TFS product of choice for low temperature performance.

PERFORMANCE BENEFITS

- **Very Low Temperature Operation** – Therminol VLT has excellent heat transfer performance at extremely low temperatures and offers the benefits of liquid coolant temperature control.
- **Cooling and/or Heating Operation** – Therminol VLT allows a single fluid to be used in many general purpose processes where both cooling and heating are required. The properties of Therminol VLT allow the same equipment to be used over its wide range of operation.
- **Easy Operation** – Using Therminol VLT avoids problems of using multiple fluids in the same piece of equipment and allows low temperature operation with normal centrifugal pumps.

PRODUCT SPECIFICATION

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| Appearance | Water-white liquid |
| Composition | Methylcyclohexane/trimethylpentane mixture |
| Maximum bulk temperature | 175°C (350°F) |
| Maximum film temperature | 210°C (410°F) |
| Normal boiling point | 99°C (211°F) |
| Pumpability, at 300 mm ² /s (cSt) | -126°C (-195°F) |
| Cloud point | -135°C (-211°F) |
| Autoignition temperature (ASTM E-659) | 264°C (507°F) |
| Autoignition temperature (DIN 51794) | 294°C (562°F) |
| Pour point (ASTM D-97) | -135°C (-211°F) |
| Minimum liquid temperatures for fully developed turbulent flow (NRe > 10000) | |
| 10 ft/sec, 1 in tube (3.048 m/s, 2.54 cm tube) | 50°C (122°F) |
| 20 ft/sec, 1 in tube (6.096 m/s, 2.54 cm tube) | 31°C (88°F) |
| Minimum liquid temperatures for transitional region flow, (NRe > 2000) | |
| 10 ft/sec, 1 in tube (3.048 m/s, 2.54 cm tube) | -108°C (-163°F) |
| 20 ft/sec, 1 in tube (6.096 m/s, 2.54 cm tube) | -118°C (-180°F) |
| Coefficient of thermal expansion at 200°C | 0.001420/°C (0.000786/°F) |
| Heat of vaporization at max. use temperature | 252.3 kJ/kg (108.6 Btu/lb) |
| Kinematic viscosity at 100°C (ASTM D-445) | 0.41 mm ² /s (cSt) |
| Kinematic viscosity at 40°C (ASTM D-445) | 0.71 mm ² /s (cSt) |
| Liquid density at 25°C (ASTM D-4052) | 744 kg/m ³ (6.21 lb/gal) |
| Total acidity (ASTM D-664) | < 0.2 mg KOH/g |
| Average molecular weight | 102 |
| Pseudocritical temperature | 299°C (570°F) |
| Pseudocritical pressure | 35.0 bar (521.7 psia) |
| Pseudocritical density | 267.80 kg/m ³ (16.72 lb/ft ³) |
| Copper corrosion (ASTM D-130) | << 1 a |
| Moisture content, maximum (ASTM E-203) | 80 ppm |
| Dielectric constant @ 23°C (ASTM D-924) | 1.99 |

Contact the **TFS Team** today on **+44 (0)1298 815862**
or visit www.thermalfluidsolutions.com