

# Technical Data Sheet

## Therminol® 66 Heat Transfer Fluid

### Applications

- htf - aluminum foil printing
- htf - bakery
- htf - detergent
- htf - fine chemicals
- htf - food/feed/beverage processing
- htf - production of bioalcohol
- htf - production of biodiesel
- Abs
- Adhesives
- Biomass - orc
- Cement - waste heat recovery + orc
- Chemicals & petrochemicals
- Desalination
- Fibers
- Glass - waste heat recovery + orc
- Hybrid solar + orc
- Oil or gas processing
- Oil recycling
- Polyester (pet)
- Polyethylene
- Polymer & plastic
- Polypropylene
- Refining
- Resins
- Silicone
- Solar csp
- Specialty chemicals
- Styrene
- Tall oil

### Key Attributes

- Experience
- Fouling Resistant
- Proven Fluid
- True 650° F (345° C) Performance



### Product Description

Therminol 66 is the world's most popular high-temperature, liquid-phase heat transfer fluid. Therminol 66 is pumpable at low temperatures, and offers high temperature thermal stability.

#### Performance Benefits

- **Experience**—Therminol 66 is the most popular high-temperature, liquid-phase heat transfer fluid in the world. No heat transfer fluid material in the world has a higher degree of customer satisfaction than Therminol 66.
- **Proven Fluid**—In a wide variety of applications and thousands of systems around the world, Therminol 66 delivers excellent performance.
- **True 650° F (345° C) Performance**—Therminol 66 sets the performance standard for high-temperature, liquid-phase fluids. Users can expect many years of reliable, trouble-free operation even when operating continuously at the recommended bulk temperature.
- **Fouling Resistant**—Therminol 66 is specifically engineered to resist solids formation and system fouling, providing more reliable operation and potential cost savings.

For more information, visit [www.Therminol.com](http://www.Therminol.com).

### Typical Properties

Property	Test Method	Typical Value, Units
General		

Appearance		Clear, pale yellow liquid
Composition		Modified terphenyl
Recommended Bulk Temperature		345 °C (650 °F)
Maximum film temperature		375 °C (705 °F)
Normal Boiling Point		359 °C (678 °F)
Pumpability		
@300 mm <sup>2</sup> /s (cSt)		11 °C (52 °F)
@ 2000 mm <sup>2</sup> /s (cSt)		-3 °C (27 °F)
Flash Point		
COC	ASTM D92	184 °C (363 °F)
PMCC	ASTM D93	170 °C (338 °F)
Autoignition Temperature	ASTM E659	374 °C (705 °F)
	DIN 51794	399 °C (750 °F)
Pour Point	ISO 3016	-32 °C (-25 °F)
Minimum liquid temperatures for fully developed turbulent flow (NRe > 10000)		
10 ft/s, 1-in. tube (3.048 m/s, 2.54-cm tube)		72 °C (162 °F)
20 ft/s, 1-in. tube (6.096 m/s, 2.54-cm tube)		53 °C (128 °F)
Minimum liquid temperatures for transitional region flow, (NRe > 2000)		
10 ft/s, 1-in. tube (3.048 m/s, 2.54-cm tube)		35 °C (96 °F)
20 ft/s, 1-in. tube (6.096 m/s, 2.54-cm tube)		26 °C (78 °F)
Coefficient of thermal expansion		
@ 200°C		0.000819 /°C (0.000455 /°F)
Viscosity, Kinematic		
@ 100°C	ASTM D 445	3.80 cSt, mm <sup>2</sup> /s
@ 40°C	ASTM D 445	29.6 cSt, mm <sup>2</sup> /s
Liquid Density		
@ 15°C	ASTM D 4052	1012 kg/m <sup>3</sup> (8.44 lb/gal)
@ 25°C	ASTM D 4052	1005 kg/m <sup>3</sup> (8.4 lb/gal)
Acidity	ASTM D 664	<0.2 mg KOH/g
Molecular Weight (Average)		252
Pseudocritical temperature		569 °C (1056 °F)
Pseudocritical pressure		24.3 bar (353 psia)
Pseudocritical density		317 kg/m <sup>3</sup> (19.8 lb/ft <sup>3</sup> )
Copper Corrosion	ASTM D 130	<<1a
Moisture Content, maximum	ASTM E-203	150 ppm
Dielectric Constant		
@ 23°C	ASTM D-924	2.61



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## Comments

Properties reported here are typical of average lots. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

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