

Introduction

Rodutherm 54 is a synthetic heat transfer fluid developed for closed, non-pressurized liquid-phase heating systems operating in the medium temperature range. The fluid is suitable for stable, long-term operation at a recommended bulk temperature of 280°C, with a maximum film temperature of 310°C, making it a dependable choice for industrial processes that require consistent, uniform process heat over an extended service life.

Benefits

- ▶ Excellent pumpability down to -28°C, supporting reliable low-temperature start-up.
- ▶ Low-sludge, non-fouling synthetic chemistry for a long service life and fewer system cleanings.
- ▶ Non-corrosive to metals commonly used in the construction of heat transfer systems.

Typical Properties

Property		Typical Value
Appearance		Clear, yellow liquid
Density @15°C		875 kg/m ³
Pour point		< -45°C
Kinematic Viscosity	@ 40°C	19.0 cSt
	@ 100°C	3.52 cSt
Flash point		> 170°C
Auto-ignition Temperature		> 330°C
Thermal Expansion @200°C		0.000961 /°C
Moisture Content		< 150 ppm
Recommended Bulk Temperature		280°C
Maximum Film Temperature		310°C

Liquid Properties

Temp. (°C)	Density (kg/m ³)	Heat Cap. Btu/(lb·°F) [kJ/(kg·K)]	Therm. Cond. Btu/(ft·hr·°F) [W/(m·k)]	Viscosity cSt	Viscosity cP	Vapor Press. Kgf/cm ² kPa
-10	892	0.430 [1.80]	0.0763 [0.132]	346	309	—
0	885	0.437 [1.83]	0.0757 [0.131]	162	143	—
20	872	0.456 [1.91]	0.0740 [0.128]	47.7	41.6	—
50	852	0.480 [2.01]	0.0722 [0.125]	13.1	11.1	—
100	818	0.523 [2.19]	0.0688 [0.119]	3.52	2.88	0.00031 0.031
150	784	0.566 [2.37]	0.0653 [0.113]	1.65	1.29	0.0034 0.33
200	748	0.607 [2.54]	0.0618 [0.107]	1.00	0.75	0.0219 2.15
250	711	0.650 [2.72]	0.0589 [0.102]	0.69	0.49	0.0995 9.76
300	672	0.693 [2.90]	0.0555 [0.096]	0.50	0.33	0.3508 34.4

Rodutherm 54 — Technical Data Sheet

The data presented is typical and subject to normal manufacturing variation. For product safety information, please refer to the Safety Data Sheet.