



RODUTHERM J

Excellent thermal stability synthetic thermal oil | Technical Data Sheet

Introduction

Rodutherm J is a high-performance synthetic heat transfer oil designed for use in heat transfer systems ranging from -75°C to 315°C. It exhibits excellent heat transfer and flow performance at both high and low temperatures. Rodutherm J has superior thermal stability and antioxidant properties compared to other competing brands, resulting in a long lifespan and lower operating costs.

Benefits

- Excellent low-temperature characteristics: Rodutherm J has an extremely low pour point and excellent low-temperature fluidity, making it an energy-saving low-temperature cooling heat transfer oil that can be used in a wide temperature range.
- Outstanding heat transfer performance: Rodutherm J has excellent heat transfer coefficient at low temperatures, and its unique molecular composition enables it to maintain outstanding heat transfer performance even at extremely low operating temperatures.
- Accurate temperature control performance: In addition to liquid-phase systems, Rodutherm J can also be used in gas-phase systems. It evaporates above 181°C, and this characteristic can be fully utilized when used in systems that require precise temperature control.

Typical Properties

Property	Typical Value
Appearance	Clear liquid
Liquid phase operating temperature	-75°C ~ 315°C
Gas phase operating temperature	181°C ~ 315°C
Maximum film temperature	345°C
Flash point (O.C)	63°C
Ignition temperature	67°C
Autoignition temperature	430°C
Pour point	<-75°C
Coefficient of thermal expansion@100°C	0.00108/°C
Kinematic viscosity@40°C	0.88 cSt
Kinematic viscosity @100°C	0.45 cSt
Density@25°C	862 kg/m ³

Liquid Properties

°C	kPa	kJ/(kg·K)	W/(m·K)	kg/m ³	mm ² /s
-80	1.41	0.1440	931.3	10.20	
-60	1.49	0.1401	918.1	5.53	
-40	1.57	0.1362	904.9	3.52	
-20	0.001	1.65	0.1323	891.7	2.52
0	0.032	1.73	0.1284	878.5	1.98
20	0.114	1.80	0.1246	863.2	1.27
40	0.376	1.88	0.1207	848.0	0.880
60	1.17	1.95	0.1168	832.7	0.642
80	3.13	2.02	0.1128	817.4	0.526
100	7.49	2.10	0.1088	800.4	0.450

RODUTHERM J — 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.