

Rodutherm BT

Synthetic Heat Transfer Fluid with excellent thermal stability

Introduction

Rodutherm BT is a fully synthesized high-temperature heat conduction oil designed for use in the - 60 °C -330 °C liquid heat transfer system or the 302 °C -330 °C steam heat transfer system. Its ultra-low tipping point and strict thermal stability tests have proved that it can be applied to long-term stability at -60 °C -330 °C.

Benefits

- ◆ Has a tipping point of below -60 °C, and has excellent low-temperature fluidity. It can be used as a energy-saving low-temperature cooling and heat conduction oil in a wide range of temperatures.
- ◆ Compared with ethylene glycol cold carriers, it is not necessary to control the moisture concentration and carry out rust prevention measures. It is directly used, fast and convenient.
- ◆ No generation of metal corrosive material, which is suitable for all kinds of metallic system.

Typical Properties

PROPERTY		TYPICAL VALUE
Appearance		Light yellow
Density @15°C		1.005
Pour point		<-60
Kinematic Viscosity	cst@-61°C	300
	cst@40°C	2.63
	cst@100°C	1.15
Flash point (C.C.)		134
Auto-ignition Temperature		505
Moisture Content		< 100 ppm
Distillation	10%	270
	90%	380

Liquid Properties

Temperature		Vapor Pressure	Heat Capacity	Thermal Conduct	Density (kg/m^3)		Viscosity(mPa·s)	
°F	°C	kPa	kJ/(kg·K)	W/m·K	Gas phase	liquid phase	Gas phase	liquid phase
-76	-60		1.368	0.143		1050		381
-40	-40		1.402	0.142		1043		58.0
-4	-20		1.464	0.139		1028		17.2
32	0		1.536	0.137		1014		7.46
68	20		1.598	0.134		999		4.11
104	40		1.661	0.131		984		2.63
140	60		1.728	0.129		970		1.87
176	80		1.791	0.127		955		1.43
212	100		1.862	0.124		940		1.15
248	120		1.925	0.122		926		0.97
284	140	1.0	1.987	0.120		911		0.84
320	160	2.0	2.050	0.116	0.20	896	0.0097	0.75
356	180	4.3	2.121	0.114	0.42	882	0.0101	0.68
392	200	8.5	2.188	0.110	0.72	867	0.0106	0.63
428	220	16.3	2.251	0.108	1.22	853	0.0111	0.59
464	240	28.9	2.314	0.106	1.88	838	0.0116	0.56
500	260	48.9	2.381	0.103	2.88	824	0.0121	0.53
536	280	68.8	2.443	0.101	4.25	809	0.0126	0.51
572	300	99.6	2.510	0.099	6.14	794	0.0131	0.50
608	320	177	2.573	0.096	8.82	778	0.0136	0.48
644	340	236	2.640	0.094	11.9	762	0.0141	0.47
680	360	397	2.703	0.091	15.7	746	0.0146	0.46