NEXTHERM 332

Heat Transfer Oil (series 111)

NEXTHERM 332 is a high-quality, environmentally friendly heat transfer oil designed for systems that require a fluid with stability up to 332°C. It is an ideal heat transfer fluid for a wide range of applications that require a long-lasting and clean running fluid. The combination of high-quality base fluids and additives provides excellent resistance to oxidation and thermal degradation. With improved thermal capacity and conductivity, NEXTHERM 332 can increase system performance by enhancing the heat transfer capability.

This non-toxic and non-hazardous formulation is safe for workers and the environment and can be disposed in the same manner as used motor oil.

Applications

- **Open and closed loop heat transfer systems (inert gas blanketed)**

Benefits

- **Very long fluid life, Inhibited formulation, prolongs fluid life in the event of air contamination**
- **Higher flash point than most competitive oils**
- **Clean running formulation, resists deposit formation**
- **Thermally stable formulation**
- **Low odour**
- **Low volatility and vapour pressure**
- **Can be disposed of using standard oil recycling services**

Specifications

Maximum Bulk Temperature °C	332
Maximum Film Temperature °C	354
Flash Point °C	229
Fire Point °C	257
Pour Point °C	-18
Specific Gravity @ 15°C	0,869
Thermal Conductivity @ 120°C(W/m*K)	0,139
Thermal Conductivity @ 220°C (W/m*K)	0,133
Thermal Conductivity @ 260°C (W/m*K)	0,131
Heat Capacity @ 220°C (kJ/kg*K)	2,592
Heat Capacity @ 280°C (kJ/kg*K)	2,790
Distillation Range, 10% °C	408
Distillation Range, 90%, °C	507

Values included in this TDS are typical and do not constitute a specification. Manufacturing specifications are available upon request. It is recommended that routine oil analysis tests be performed to properly assess the condition of the oil. Verify that this TDS is the most UpToDate version, specifications are subject to change due to possible formulation and raw material changes.

Temperature (°C)	Density (kg/m^3)	Kinematic Viscosity (cSt)	Dynamic Viscosity (cP)	Thermal Conductivity (W/m-K)	Heat Capacity (kJ/kg-K)	Vapor Pressure (kPa)
-5	882,63	683,16	602,98	0,146	1,849	0,00
0	879,23	450,98	396,52	0,146	1,866	0,00
5	875,83	307,70	269,49	0,145	1,882	0,00
10	872,43	216,28	188,69	0,145	1,899	0,00
15	869,03	156,16	135,71	0,145	1,915	0,00
20	865,63	115,53	100,01	0,145	1,932	0,00
25	862,23	87,38	75,34	0,144	1,948	0,00
30	858,83	67,42	57,90	0,144	1,965	0,00
35	855,43	52,97	45,31	0,144	1,981	0,00
40	852,03	42,31	36,05	0,143	1,998	0,00
45	848,63	34,31	29,11	0,143	2,014	0,00
50	845,23	28,20	23,84	0,143	2,031	0,00
55	841,84	23,47	19,76	0,142	2,047	0,00
60	838,44	19,76	16,57	0,142	2,064	0,00
65	835,04	16,81	14,04	0,142	2,080	0,00
70	831,64	14,44	12,01	0,142	2,097	0,00
75	828,24	12,51	10,37	0,141	2,113	0,00
80	824,84	10,93	9,02	0,141	2,130	0,00
85	821,44	9,62	7,90	0,141	2,146	0,00
90	818,04	8,53	6,97	0,140	2,163	0,00
95	814,64	7,60	6,19	0,140	2,179	0,00
100	811,24	6,82	5,53	0,140	2,196	0,00
105	807,84	6,15	4,97	0,140	2,212	0,00
110	804,44	5,58	4,48	0,139	2,229	0,00
115	801,04	5,08	4,07	0,139	2,245	0,01
120	797,64	4,64	3,70	0,139	2,262	0,01
125	794,24	4,26	3,39	0,138	2,278	0,01
130	790,84	3,93	3,11	0,138	2,295	0,01
135	787,44	3,64	2,86	0,138	2,311	0,02
140	784,04	3,38	2,65	0,137	2,328	0,03

Temperature (°C)	Density (kg/m^3)	Kinematic Viscosity (cSt)	Dynamic Viscosity (cP)	Thermal Conductivity (W/m-K)	Heat Capacity (kJ/kg-K)	Vapor Pressure (kPa)
145	780,64	3,14	2,45	0,137	2,344	0,03
150	777,24	2,93	2,28	0,137	2,361	0,04
155	773,84	2,75	2,13	0,137	2,377	0,05
160	770,44	2,58	1,99	0,136	2,394	0,06
165	767,04	2,43	1,86	0,136	2,410	0,08
170	763,64	2,29	1,75	0,136	2,427	0,10
175	760,24	2,16	1,65	0,135	2,443	0,12
180	756,85	2,05	1,55	0,135	2,460	0,15
185	753,45	1,95	1,47	0,135	2,476	0,18
190	750,05	1,85	1,39	0,135	2,493	0,22
195	746,65	1,76	1,32	0,134	2,509	0,26
200	743,25	1,68	1,25	0,134	2,526	0,32
205	739,85	1,61	1,19	0,134	2,542	0,38
210	736,45	1,54	1,13	0,133	2,559	0,46
215	733,05	1,47	1,08	0,133	2,575	0,54
220	729,65	1,42	1,03	0,133	2,592	0,66
225	726,25	1,36	0,99	0,133	2,608	0,77
230	722,85	1,31	0,95	0,132	2,625	0,91
235	719,45	1,26	0,91	0,132	2,641	1,06
240	716,05	1,22	0,87	0,132	2,658	1,26
245	712,65	1,17	0,84	0,132	2,674	1,45
250	709,25	1,14	0,81	0,131	2,691	1,70
255	705,85	1,10	0,78	0,131	2,707	1,96
260	702,45	1,06	0,75	0,131	2,724	2,28
265	699,05	1,03	0,72	0,130	2,740	2,60
270	695,65	1,00	0,70	0,130	2,757	3,02
275	692,25	0,97	0,67	0,130	2,773	3,44
280	688,85	0,95	0,65	0,130	2,790	3,97
285	685,45	0,92	0,63	0,129	2,806	4,49
290	682,05	0,90	0,61	0,129	2,823	5,16

Temperature (°C)	Density (kg/m^3)	Kinematic Viscosity (cSt)	Dynamic Viscosity (cP)	Thermal Conductivity (W/m-K)	Heat Capacity (kJ/kg-K)	Vapor Pressure (kPa)
295	678,65	0,87	0,59	0,129	2,839	5,82
300	675,25	0,85	0,57	0,128	2,856	6,65
305	671,86	0,83	0,56	0,128	2,872	7,47
310	668,46	0,81	0,54	0,128	2,889	8,49
315	665,06	0,79	0,53	0,128	2,905	9,51
320	661,66	0,78	0,51	0,127	2,922	10,75
325	658,26	0,76	0,50	0,127	2,938	12,00
330	654,86	0,74	0,49	0,127	2,955	13,51
332	653,39	0,74	0,48	0,126	2,960	14,07