

NEXTHERM FG

Food Grade Transfer Oil (series 119)

NEXTHERM FG is a high-quality, food grade thermal oil that has been formulated for systems requiring a food grade oil in high temperature thermal oil systems.

NEXTHERM FG uses high-quality base oils and additives to provide excellent protection against oxidation and thermal degradation.

Applications

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

Benefits

- Food grade formulation
- Excellent film strength
- Excellent wear protection
- Long fluid life
- Excellent lubricity
- Resists thermal and oxidative breakdown
- Clean running, resists sludge formation
- Ideal for a wide variety of applications and environments



Specifications

Maximum Bulk Temperature °C	327
Maximum Film Temperature °C	354
Flash Point °C	227
Fire Point °C	241
Pour Point °C	-17
Specific Gravity @ 15°C	0,86
Thermal Conductivity @ 120°C(W/m*K)	0,138
Thermal Conductivity @ 220°C (W/m*K)	0,133
Thermal Conductivity @ 260°C (W/m*K)	0,13
Heat Capacity @ 220°C (kJ/kg*K)	2,568
Heat Capacity @ 280°C (kJ/kg*K)	2,699
Distillation Range, 10% °C	383
Distillation Range, 90%, °C	494

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)
0	870,13	434,98	378,49	0,146	1,847	0,00
10	863,40	207,45	179,11	0,145	1,877	0,00
20	856,67	110,41	94,59	0,144	1,913	0,00
30	849,94	64,28	54,64	0,144	1,948	0,00
40	843,22	40,29	33,97	0,143	1,978	0,00
50	836,49	26,84	22,45	0,143	2,008	0,00
60	829,76	18,80	15,60	0,142	2,043	0,00
70	823,03	13,74	11,31	0,141	2,078	0,00
80	816,30	10,41	8,50	0,141	2,108	0,00
90	809,57	8,12	6,57	0,140	2,138	0,00
100	802,84	6,50	5,22	0,140	2,173	0,00
110	796,11	5,32	4,23	0,139	2,208	0,00
120	789,39	4,43	3,50	0,138	2,238	0,01
130	782,66	3,75	2,94	0,138	2,268	0,01
140	775,93	3,23	2,50	0,137	2,303	0,03
150	769,20	2,81	2,16	0,137	2,338	0,05
160	762,47	2,47	1,88	0,136	2,368	0,07
170	755,74	2,19	1,66	0,136	2,403	0,10
180	749,01	1,96	1,47	0,135	2,438	0,16
190	742,28	1,77	1,32	0,134	2,468	0,23
200	735,56	1,61	1,19	0,134	2,498	0,34
210	728,83	1,48	1,08	0,133	2,533	0,49
220	722,10	1,36	0,98	0,133	2,568	0,69
230	715,37	1,26	0,90	0,132	2,598	0,97
240	708,64	1,17	0,83	0,132	2,628	1,33
250	701,91	1,09	0,77	0,131	2,663	1,80
260	695,18	1,03	0,71	0,130	2,699	2,41
270	688,45	0,97	0,66	0,130	2,729	3,20



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)
280	681,72	0,91	0,62	0,129	2,764	4,20
290	675,00	0,86	0,58	0,129	2,799	5,46
300	668,27	0,82	0,55	0,128	2,829	7,04
310	661,54	0,78	0,52	0,128	2,859	8,99
320	654,81	0,75	0,49	0,127	2,894	11,39
330	648,08	0,72	0,47	0,127	2,929	14,31



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)
285	702,33	1,24	0,87	0,114	2,842	3,75
290	699,23	1,20	0,84	0,114	2,861	4,49
295	696,13	1,17	0,81	0,114	2,879	5,50
300	693,03	1,13	0,79	0,113	2,897	6,60
305	689,93	1,10	0,76	0,113	2,915	8,04
310	686,83	1,07	0,74	0,113	2,933	9,71
315	683,73	1,04	0,71	0,112	2,952	11,73
320	680,63	1,02	0,69	0,112	2,970	14,51
325	677,53	0,99	0,67	0,112	2,988	18,07
330	674,43	0,97	0,65	0,111	3,006	23,06

