STANDARD HEAT TRANSFER OIL

USES

- It is a high quality white mineral oil possessing low vapor pressure and is selected for its high degrees of thermal stability, specifically heat and thermal conductivity. In a well-designed and properly operated system
- It can be expected to give years of trouble-free service.
- For maximum efficiency, all heat transfer should be used under conditions of turbulent flow, minimizing skin temperatures, and reducing thermal stress on the fluid.
- Domestic and industrial premises heating.
- Steam and hot water production
- Heating temperature exchange
- Thermal baths, autoclaves, reactors, ovens, molds, drying tunnels, presses heating
- Manufacturing processes (cement, paper, wood industries, etc).

PERFORMANCES

- ISO 6743/12 class L, QB family
- DIN 51502 class

CUSTOMERS BENEFITS

- Thermal stability
- High flash point
- It was designed for closed heating systems, liquid phase, non-pressurized operating at medium temperatures up to 325 °C. Open systems (those in which the oil continues in the expansion tank is exposed to air) are usually more severe applications, its put greater pressure on oil as closed systems.)
- For maximum systems efficiency, all heat transfer fluids should be used in turbulent flow conditions,

CHARACTERISTICS

PROPERTY	TEST ASTM	HTO 21
Viscosity in cSt at 40 °C	D445	51.2
Viscosity in cSt at 100 °C	D445	7.08
Viscosity SUS at 100 °F	D2161	260
API gravity at 15 °C in kg/dm^3	D287	31.5
Index of Viscosity	D2270	95+
Flash Point in °C	D92	238
Pour Point in °C	D97	–15
TAN in mg KOH/g	D664	0.01
Carbon Residue in %	D189	0.01
Copper strip corrosion test, 3 hours; 100 °C	D130	N° 1
Coefficient of thermal expansion per °C	–	0.00077
Aniline Point °C	D611	105
Relative Density 60 °F 150 °F 300 °F 400 °F 500 °F 600 °F	D1250	 0.870 0.840 0.790 0.750 0.712 0.663
"Thermal conductivity in BTU/ FT2 / °F 150 °F 300 °F 400 °F 500 °F 600 °F	–	 0.0746 0.0709 0.0680 0.0662 0.0640
Specific heat in BTU / 1b / °F 150 °F 300 °F 400 °F 500 °F 600 °F	–	 0.515 0.593 0.649 0.703 0.761
Vapor pressure in mm/Hg 300 °F 450 °F 600 °F	–	 0.0200 2.0 45.0
Initial distillation point, °F 10% 20% 40% 60% 80% Final	D2887	632 793 814 839 859 881 976

Remark: Although the preceding values are typical properties, they do not represent guaranteed characteristics.

UNITS CHARTS

IMPERIAL UNITS

Temp. (°F)	Viscosity (cP)	Thermal Cond. BTU/lb°F	Specific Heat BTU/lb°F	Density lb°/ft³	Temp. (°F)	Viscosity (cP)	Thermal Cond. BTU/lb°F	Specific Heat BTU/lb°F	Density lb°/ft³
32	160	0.0801	0.453	55.5	320	1.50	0.0730	0.592	48.8
40	108	0.0799	0.456	55.3	340	1.30	0.0724	0.602	48.3
60	49.0	0.0794	0.466	54.8	360	1.20	0.0719	0.612	47.8
80	27.0	0.0789	0.476	54.3	380	1.00	0.0714	0.621	47.4
100	17.0	0.0785	0.486	53.9	400	0.93	0.0708	0.631	46.9
120	11.0	0.0780	0.495	53.4	420	0.85	0.0703	0.641	46.4
140	8.20	0.0775	0.505	52.9	440	0.77	0.0697	0.650	46.0
160	6.20	0.0770	0.515	52.5	460	0.7	0.0692	0.660	45.5
180	4.80	0.0765	0.524	52.0	480	0.64	0.0586	0.670	45.0
200	3.90	0.0760	0.534	51.6	500	0.59	0.0681	0.680	44.6
220	3.20	0.0755	0.544	51.1	520	0.55	0.0675	0.689	44.1
240	2.70	0.0750	0.553	50.6	540	0.51	0.0669	0.669	43.6
260	2.30	0.0745	0.563	50.2	560	0.47	0.0664	0.709	43.2
280	1.90	0.0740	0.573	49.7	580	0.44	0.0658	0.718	42.7

METRIC UNITS

Temp. (°C)	Viscosity (mPa s)	Thermal Cond. W/m K	Specific Heat kJ/kg K	Density kg/m³	Temp. (°C)	Viscosity (mPa s)	Thermal Cond. W/m K	Specific Heat kJ/kg K	Density kg/m³
0	160	0.1361	1.894	890	160	1.50	0.1240	2.478	783
10	70.0	0.1354	1.930	884	170	1.30	0.1232	2.515	776
20	37.0	0.1347	1.967	877	180	1.20	0.1224	2.552	769
30	23.0	0.1340	2.003	870	190	1.10	0.1216	2.588	763
40	15.0	0.1332	2.040	863	200	1.00	0.1208	2.625	756
50	11.0	0.1325	2.076	857	210	0.88	0.1200	2.661	749
60	8.10	0.1318	2.113	850	220	0.81	0.1191	2.698	742
70	6.30	0.1310	2.150	843	230	0.75	0.1183	2.734	736
80	5.00	0.1303	2.186	836	240	0.69	0.1174	2.771	729
90	4.10	0.1295	2.223	830	250	0.64	0.1165	2.807	722
100	3.40	0.1287	2.259	823	260	0.59	0.1157	2.844	715
110	2.90	0.1280	2.296	816	270	0.55	0.1149	2.880	709
120	2.40	0.1272	2.332	810	280	0.51	0.1140	2.917	702
130	2.20	0.1264	2.369	803	290	048	0.1131	2.954	695
140	1.90	0.1256	2.405	796	300	0.45	0.1123	2.990	689
150	1.70	0.1248	2.442	789	310	0.42	0.1114	3.027	682
					315	0.41	0.1109	3.045	678

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