



HEAT TRANSFER FLUIDS

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XCEL THERM® 315 – Engineering Properties

Economical synthetic oil rated to 550°F (288°C) with very high resistance to oxidation as well as high resistance to sludge and fouling.

Temperature		Viscosity		Density		Enthalpy		Thermal Conductivity		Vapor Pressure	
°F	°C	cSt	cP	lb/ft ³	kg/m ³	BTU/lb-°F	J/g-K	BTU/ft-hr-°F	W/m-K	psia	kg/cm ²
-20	-29	1,470	1324	0.9034	56.22	7.52	900.6	0.411	1.72	0.0769	0.1331
0	-18	229	205	0.8956	55.74	7.45	892.8	0.421	1.76	0.0763	0.1320
20	-7	62.0	54.9	0.8879	55.25	7.39	885.1	0.430	1.80	0.0757	0.1309
40	4	24.0	21.1	0.8801	54.77	7.32	877.3	0.440	1.84	0.0750	0.1298
60	16	11.8	10.2	0.8723	54.29	7.26	869.6	0.449	1.88	0.0744	0.1286
80	27	6.81	5.86	0.8645	53.80	7.19	861.8	0.459	1.92	0.0737	0.1275
100	38	4.40	3.76	0.8568	53.32	7.13	854.1	0.468	1.96	0.0731	0.1264
120	49	3.09	2.61	0.8490	52.83	7.06	846.3	0.478	2.00	0.0725	0.1253
140	60	2.30	1.93	0.8412	52.35	7.00	838.6	0.488	2.04	0.0718	0.1242
160	71	1.80	1.49	0.8334	51.87	6.93	830.8	0.497	2.08	0.0712	0.1231
180	82	1.46	1.20	0.8256	51.38	6.87	823.1	0.507	2.12	0.0705	0.1220
200	93	1.22	0.993	0.8179	50.90	6.80	815.3	0.516	2.16	0.0699	0.1209
220	104	1.042	0.841	0.8101	50.41	6.74	807.6	0.526	2.20	0.0692	0.1198
240	116	0.910	0.727	0.8023	49.93	6.67	799.8	0.535	2.24	0.0686	0.1186
260	127	0.808	0.640	0.7945	49.45	6.61	792.1	0.545	2.28	0.0680	0.1175
280	138	0.728	0.571	0.7868	48.96	6.55	784.3	0.554	2.32	0.0673	0.1164
300	149	0.664	0.516	0.7790	48.48	6.5	776.6	0.564	2.36	0.0667	0.1153
320	160	0.613	0.471	0.7712	48.00	6.4	768.8	0.574	2.40	0.0660	0.1142
340	171	0.570	0.434	0.7634	47.51	6.4	761.1	0.583	2.44	0.0654	0.1131
360	182	0.535	0.403	0.7556	47.03	6.3	753.3	0.593	2.48	0.0647	0.1120
380	193	0.506	0.377	0.7479	46.54	6.2	745.6	0.602	2.52	0.0641	0.1109
400	204	0.482	0.355	0.7401	46.06	6.2	737.8	0.612	2.56	0.0635	0.1098
420	216	0.461	0.336	0.7323	45.58	6.1	730.0	0.621	2.60	0.0628	0.1086
440	227	0.443	0.320	0.7245	45.09	6.0	722.3	0.631	2.64	0.0622	0.1075
460	238	0.427	0.305	0.7168	44.61	6.0	714.5	0.640	2.68	0.0615	0.1064
480	249	0.414	0.293	0.7090	44.12	5.9	706.8	0.650	2.72	0.0609	0.1053
500	260	0.403	0.281	0.7012	43.64	5.8	699.0	0.660	2.76	0.0602	0.1042
520	271	0.393	0.271	0.6934	43.16	5.8	691.3	0.669	2.80	0.0596	0.1031
540	282	0.384	0.262	0.6856	42.67	5.7	683.5	0.679	2.84	0.0590	0.1020
550	288	0.380	0.258	0.6818	42.43	5.7	679.7	0.683	2.86	0.0586	0.1014
560	293	0.376	0.254	0.6779	42.19	5.6	675.8	0.688	2.88	0.0583	0.1009
580	304	0.369	0.247	0.6701	41.70	5.6	668.0	0.698	2.92	0.0577	0.0998
600	316	0.363	0.240	0.6623	41.22	5.5	660.3	0.707	2.96	0.0570	0.0986

* Data represents typical laboratory samples and are not guaranteed for all samples.

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REVISION DATE: 2024-02-20