



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	56.22	900.6	0.411	1.72	0.0769	0.1331		
0	-18	229	205	55.74	892.8	0.421	1.76	0.0763	0.1320		
20	-7	62.0	54.9	55.25	885.1	0.430	1.80	0.0757	0.1309		
40	4	24.0	21.1	54.77	877.3	0.440	1.84	0.0750	0.1298		
60	16	11.8	10.2	54.29	869.6	0.449	1.88	0.0744	0.1286	0.0007	0.0000
80	27	6.81	5.86	53.80	861.8	0.459	1.92	0.0737	0.1275	0.0010	0.0001
100	38	4.40	3.76	53.32	854.1	0.468	1.96	0.0731	0.1264	0.0014	0.0001
120	49	3.09	2.61	52.83	846.3	0.478	2.00	0.0725	0.1253	0.0020	0.0001
140	60	2.30	1.93	52.35	838.6	0.488	2.04	0.0718	0.1242	0.0028	0.0002
160	71	1.80	1.49	51.87	830.8	0.497	2.08	0.0712	0.1231	0.0039	0.0003
180	82	1.46	1.20	51.38	823.1	0.507	2.12	0.0705	0.1220	0.0055	0.0004
200	93	1.22	0.993	50.90	815.3	0.516	2.16	0.0699	0.1209	0.0078	0.0006
220	104	1.042	0.841	50.41	807.6	0.526	2.20	0.0692	0.1198	0.0111	0.0008
240	116	0.910	0.727	49.93	799.8	0.535	2.24	0.0686	0.1186	0.0157	0.0011
260	127	0.808	0.640	49.45	792.1	0.545	2.28	0.0680	0.1175	0.0222	0.0016
280	138	0.728	0.571	48.96	784.3	0.554	2.32	0.0673	0.1164	0.0314	0.0022
300	149	0.664	0.516	48.48	776.6	0.564	2.36	0.0667	0.1153	0.0444	0.0031
320	160	0.613	0.471	48.00	768.8	0.574	2.40	0.0660	0.1142	0.0628	0.0044
340	171	0.570	0.434	47.51	761.1	0.583	2.44	0.0654	0.1131	0.0889	0.0062
360	182	0.535	0.403	47.03	753.3	0.593	2.48	0.0647	0.1120	0.1257	0.0088
380	193	0.506	0.377	46.54	745.6	0.602	2.52	0.0641	0.1109	0.1777	0.0125
400	204	0.482	0.355	46.06	737.8	0.612	2.56	0.0635	0.1098	0.2514	0.0177
420	216	0.461	0.336	45.58	730.0	0.621	2.60	0.0628	0.1086	0.3555	0.0250
440	227	0.443	0.320	45.09	722.3	0.631	2.64	0.0622	0.1075	0.5029	0.0354
460	238	0.427	0.305	44.61	714.5	0.640	2.68	0.0615	0.1064	0.7112	0.0500
480	249	0.414	0.293	44.12	706.8	0.650	2.72	0.0609	0.1053	1.0059	0.0707
500	260	0.403	0.281	43.64	699.0	0.660	2.76	0.0602	0.1042	1.4227	0.1000
520	271	0.393	0.271	43.16	691.3	0.669	2.80	0.0596	0.1031	2.0122	0.1415
540	282	0.384	0.262	42.67	683.5	0.679	2.84	0.0590	0.1020	2.8460	0.2001
550	288	0.380	0.258	42.43	679.7	0.683	2.86	0.0586	0.1014	3.3846	0.2380
560	293	0.376	0.254	42.19	675.8	0.688	2.88	0.0583	0.1009	4.0252	0.2830
580	304	0.369	0.247	41.70	668.0	0.698	2.92	0.0577	0.0998	5.6930	0.4003
600	316	0.363	0.240	41.22	660.3	0.707	2.96	0.0570	0.0986	8.0518	0.5661

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

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