



## General Purpose Viscosity Reference Standards

### Kinematic mm<sup>2</sup>/s (cSt)

Product Code	20.00°C 68.00°F	25.00°C 77.00°F	37.78°C 100.00°F	40.00°C 104.00°F	50.00°C 122.00°F	60.00°C 140.00°F	80.00°C 176.00°F	98.89°C 210.00°F	100.00°C 212.00°F
N 0.4	0.4739	0.4583	0.4087	0.4015	-	-	-	-	-
N 0.8	0.6525	0.6205	0.5495	0.5385	-	-	-	-	-
N 1.0	1.276	1.189	1.006	0.9803	0.8729	-	-	-	-
N2	2.437	2.216	1.776	1.715	1.476	-	-	-	-
S3	4.553	4.019	3.022	2.887	2.392	2.019	1.506	1.193	1.179
D5	7.056	6.086	-	4.137	3.321	-	-	-	1.493
S6	10.39	8.792	6.048	5.706	4.470	3.601	2.500	1.884	1.855
D10	14.93	12.42	8.207	7.693	5.880	4.641	3.115	2.292	2.255
N10	20.92	17.01	10.70	9.957	7.395	5.701	3.693	2.650	2.602
S20	43.51	34.11	19.79	18.18	12.82	9.447	5.703	3.892	212.0
N35	85.18	65.07	35.51	32.30	21.84	15.51	8.805	5.743	5.617
S60	160.5	118.7	60.16	54.07	34.87	23.77	12.62	7.855	7.660
N100	331.5	238.3	113.1	100.6	62.01	40.63	20.20	11.98	11.65
S200	649.2	456.2	204.9	180.6	107.1	67.77	31.78	18.03	17.49
D500	829.5	578.1	-	223.6	130.8	-	37.54	-	20.33
N350	1235	851.2	365.5	319.9	183.8	112.9	50.20	27.33	26.48
D1000	1696	1159	-	422.8	238.8	-	-	-	32.15
S600	2156	1460	598.6	519.7	289.0	172.1	72.56	37.92	36.65
N1000	4490	2981	1165	1004	537.8	309.0	122.2	60.70	58.52
S2000	8024	5267	1995	1710	893.1	500.6	188.5	89.86	86.45
D5000	8626	5644	-	1818	945.2	-	-	-	89.83
D7500	13383	8702	3207	2735	1397	765.5	-	-	122.0
N4000	17966	11627	4216	3589	1811	981.2	345.9	155.4	149.1
S8000	35239	22553	7984	6753	3340	1766	592.5	254.8	243.7
N15000	70582	44855	15541	13087	6342	3289	1054	433.5	413.1
S30000	-	79747	27285	22946	10993	5623	1756	700.1	666.5

All values stated are nominal - 08/12/2008



## Dynamic mPa.s (cP)

Product Code	20.00°C 68.00°F	25.00°C 77.00°F	37.78°C 100.00°F	40.00°C 104.00°F	50.00°C 122.00°F	60.00°C 140.00°F	80.00°C 176.00°F	98.89°C 210.00°F	100.00°C 212.00°F
N 0.4	0.3160	0.3006	0.2659	0.2603	-	-	-	-	-
N 0.8	0.4579	0.4329	0.3773	0.3688	-	-	-	-	-
N 1.0	0.9904	0.9184	0.7672	0.7459	0.6576	-	-	-	-
N2	1.955	1.770	1.402	1.351	1.152	-	-	-	-
S3	3.697	3.251	2.417	2.305	1.893	1.584	1.161	0.9037	0.8921
D5	5.791	4.975	-	3.340	2.658	-	-	-	1.145
S6	8.588	7.237	4.927	4.639	3.604	2.880	1.966	1.457	1.434
D10	12.44	10.31	6.743	6.309	4.784	3.745	2.473	1.791	1.761
N10	17.82	14.43	8.989	8.350	6.153	4.706	3.000	2.120	2.080
S20	37.11	28.98	16.65	15.27	10.69	7.815	4.645	3.124	3.815
N35	72.84	55.43	29.96	27.22	18.26	12.87	7.198	4.627	4.522
S60	138.4	102.0	51.21	29.42	29.42	19.91	10.41	6.390	6.225
N100	287.6	206.0	96.89	86.05	52.66	34.26	16.79	9.821	9.542
S200	565.7	396.2	176.3	155.2	91.39	57.43	26.55	14.86	14.40
D500	723.6	502.5	-	192.3	111.7	-	31.40	-	16.77
N350	1078	740.3	315.1	275.3	157.1	95.85	42.03	22.58	21.86
D1000	1483	1010	-	364.7	204.6	-	-	-	26.61
S600	1892	1277	519.1	450.0	248.5	147.0	61.12	31.53	30.45
N1000	3955	2618	1014	872.8	464.4	265.1	103.5	50.74	48.87
S2000	7089	4638	1742	1491	773.8	430.9	160.1	75.38	72.47
D5000	7628	4975	-	1587	819.7	-	-	-	75.37
D7500	11859	7686	2809	2393	1214	661.2	-	-	102.6
N4000	15957	10296	3702	3147	1578	849.4	295.6	131.2	125.8
S8000	31398	20032	7033	5641	2920	1534	508.3	216.0	206.4
N15000	63157	40006	13754	11566	5571	2872	908.9	369.5	351.8
S30000	-	71382	24237	20355	9693	4929	1521	599.3	570.0

All values stated are nominal - 08/12/2008



## Density g/mL

Product Code	20.00°C 68.00°F	25.00°C 77.00°F	37.78°C 100.00°F	40.00°C 104.00°F	50.00°C 122.00°F	60.00°C 140.00°F	80.00°C 176.00°F	98.89°C 210.00°F	100.00°C 212.00°F
N 0.4	0.6669	0.6623	0.6505	0.6483	-	-	-	-	-
N 0.8	0.7018	0.6976	0.6867	0.6848	-	-	-	-	-
N 1.0	0.7762	0.7724	0.7626	0.7609	0.7533	-	-	-	-
N2	0.8021	0.7986	0.7893	0.7876	0.7806	-	-	-	-
S3	0.8121	0.8089	0.7998	0.7984	0.7915	0.7846	0.7708	0.7575	0.7567
D5	0.8207	0.8174	-	0.8073	0.8005	-	-	-	0.7666
S6	0.8266	0.8231	0.8146	0.8130	0.8063	0.7998	0.7863	0.7736	0.7730
D10	0.8333	0.8330	0.8216	0.8201	0.8136	0.8070	0.7939	0.7814	0.7808
N10	0.8516	0.8484	0.8401	0.8386	0.8320	0.8254	0.8124	0.8000	0.7995
S20	0.8528	0.8495	0.8414	0.8400	0.8336	0.8272	0.8145	0.8026	0.8017
N35	0.8551	0.8519	0.8438	0.8425	0.8361	0.8300	0.8175	0.8057	0.8050
S60	0.8623	0.8591	0.8512	0.8498	0.8436	0.8374	0.8251	0.8135	0.8127
N100	0.8676	0.8644	0.8567	0.8554	0.8493	0.8432	0.8312	0.8198	0.8191
S200	0.8714	0.8684	0.8606	0.8592	0.8533	0.8474	0.8353	0.8242	0.8235
D500	0.8723	0.8693	-	0.8602	0.8542	-	0.8364	-	0.8247
N350	0.8727	0.8697	0.8621	0.8607	0.8549	0.8490	0.8372	0.8261	0.8255
D1000	0.8745	0.8715	-	0.8627	0.8568	-	-	-	0.8276
S600	0.8776	0.8747	0.8671	0.8658	0.8600	0.8541	0.8424	0.8315	0.8308
N1000	0.8809	0.8781	0.8707	0.8693	0.8636	0.8580	0.8466	0.8359	0.8351
S2000	0.8835	0.8806	0.8734	0.8721	0.8664	0.8608	0.8495	0.8389	0.8383
D5000	0.8843	0.8815	-	0.8728	0.8672	-	-	-	0.8390
D7500	0.8861	0.8833	0.8760	0.8749	0.8692	0.8637	-	-	0.8413
N4000	0.8882	0.8855	0.8780	0.8769	0.8713	0.8657	0.8547	0.8442	0.8436
S8000	0.8910	0.8882	0.8809	0.8797	0.8743	0.8689	0.8579	0.8477	0.8470
N15000	0.8948	0.8919	0.8850	0.8838	0.8784	0.8731	0.8623	0.8523	0.8517
S30000	-	0.8951	0.8883	0.8871	0.8817	0.8765	0.8659	0.8560	0.8552

All values stated are nominal - 08/12/2008



## SUS

Product Code	20.00°C 68.00°F	25.00°C 77.00°F	37.78°C 100.00°F	40.00°C 104.00°F	50.00°C 122.00°F	60.00°C 140.00°F	80.00°C 176.00°F	98.89°C 210.00°F	100.00°C 212.00°F
N 0.4	-	-	-	-	-	-	-	-	-
N 0.8	-	-	-	-	-	-	-	-	-
N 1.0	-	-	-	-	-	-	-	-	-
N2	-	-	-	-	-	-	-	-	-
S3	-	-	-	-	-	-	-	-	-
D5	-	-	-	-	-	-	-	-	-
S6	-	-	-	-	-	-	-	-	-
D10	-	-	-	-	-	-	-	-	-
N10	-	-	-	-	-	-	-	-	-
S20	-	-	97.00	-	-	-	-	-	-
N35	-	-	154.5	-	-	-	-	-	-
S60	-	-	280.0	-	-	-	-	-	-
N100	-	-	524.0	-	-	-	-	-	-
S200	-	-	950.0	-	-	-	-	90.20	-
D500	-	-	-	-	-	-	-	-	-
N350	-	-	1693	-	-	-	-	130.6	-
D1000	-	-	-	-	-	-	-	-	-
S600	-	-	-	-	-	-	-	178.4	-
N1000	-	-	-	-	-	-	-	-	-
S2000	-	-	-	-	-	-	-	420.0	-
D5000	-	-	-	-	-	-	-	-	-
D7500	-	-	-	-	-	-	-	-	-
N4000	-	-	-	-	-	-	-	-	-
S8000	-	-	-	-	-	-	-	-	-
N15000	-	-	-	-	-	-	-	-	-
S30000	-	-	-	-	-	-	-	-	-

All values stated are nominal - 08/12/2008



## SFS

Product Code	20.00°C 68.00°F	25.00°C 77.00°F	37.78°C 100.00°F	40.00°C 104.00°F	50.00°C 122.00°F	60.00°C 140.00°F	80.00°C 176.00°F	98.89°C 210.00°F	100.00°C 212.00°F
N 0.4	-	-	-	-	-	-	-	-	-
N 0.8	-	-	-	-	-	-	-	-	-
N 1.0	-	-	-	-	-	-	-	-	-
N2	-	-	-	-	-	-	-	-	-
S3	-	-	-	-	-	-	-	-	-
D5	-	-	-	-	-	-	-	-	-
S6	-	-	-	-	-	-	-	-	-
D10	-	-	-	-	-	-	-	-	-
N10	-	-	-	-	-	-	-	-	-
S20	-	-	-	-	-	-	-	-	-
N35	-	-	-	-	-	-	-	-	-
S60	-	-	-	-	-	-	-	-	-
N100	-	-	-	-	-	-	-	-	-
S200	-	-	-	-	-	-	-	-	-
D500	-	-	-	-	-	-	-	-	-
N350	-	-	-	-	-	-	-	-	-
D1000	-	-	-	-	-	-	-	-	-
S600	-	-	-	-	136.5	-	-	-	-
N1000	-	-	-	-	-	-	-	-	-
S2000	-	-	-	-	-	-	-	-	-
D5000	-	-	-	-	-	-	-	-	-
D7500	-	-	-	-	-	-	-	-	-
N4000	-	-	-	-	-	-	-	-	-
S8000	-	-	-	-	-	-	-	-	-
N15000	-	-	-	-	-	-	-	-	-
S30000	-	-	-	-	-	-	-	-	-

All values stated are nominal - 08/12/2008