



# Viscosity calibration standards

- ⊕ Primary standard
- ⊕ Conforms to ASTM D2162
- ⊕ Values certified all values as stated below
- ⊕ Up to 2 Years shelf life
- ⊕ 0.5 ltr Bottles
- ⊕ Comes with calibration certificate



Accuracy in percentage:  
 Typical uncertainties for works certified viscometers would be:  
 Reverse flow, constant 0.03 to 0.1 = +/- 0.45% (0.38 for UKAS)  
 Reverse flow, constant 0.3 = +/- 0.46% (0.39 for UKAS)  
 Direct flow, constant 1.0 = +/- 0.38% (0.35 for UKAS)

Significancy in digits:  
 Both certified to 4 significant figures.  
 A laboratory making accurate viscosity measurements should always use a certified UKAS ISO 17025 viscometer if possible.

A works certificate is issued without the UKAS logo on the certificate, it is still calibrated (in the same laboratory) with the same equipment but with a single determination using one UKAS certified reference standard. The main disadvantage of a single determination is that it does not eliminate the possibility of operator or equipment error so an erroneous result is unlikely to be noticed. However this would still be within the 95% (1 in 20) probability.

\*) A laboratory, UKAS ISO 17025 certified, viscometer is certified to ASTM D446 and has a UKAS certificate making two separate determinations of the factor using two different UKAS certified reference standards.

Type	Ordering code		20°C 68°F	25°C 77°F	37.78°C 100°F	40°C 104°F	50°C 122°F	60°C 140°F	80°C 176°F	98.89°C 210°F	100°C 212°F
N 0.4*	25T0726	Kinematic	0.4739	0.4583	0.4087	0.4015					
		Dynamic	0.3160	0.3006	0.2659	0.2603					
		Density	0.6669	0.6623	0.6505	0.6483					
N 0.8*	25T0727	Kinematic	0.6525	0.6205	0.5495	0.5385					
		Dynamic	0.4579	0.4329	0.3773	0.3688					
		Density	0.7018	0.6976	0.6867	0.6848					
N 1.0*	25T0728	Kinematic	1.276	1.189	1.006	0.9803	0.8729				
		Dynamic	0.9904	0.9184	0.7672	0.7459	0.6576				
		Density	0.7762	0.7724	0.7626	0.7609	0.7533				
N2	25T0729	Kinematic	2.437	2.216	1.776	1.715	1.476				
		Dynamic	1.955	1.770	1.402	1.351	1.152				
		Density	0.8021	0.7986	0.7893	0.7876	0.7806				
S3	25T0700	Kinematic	4.565	4.035	3.048	2.915	2.420	2.047	1.534	1.218	1.202
		Dynamic	3.707	3.262	2.437	2.327	1.915	1.605	1.182	0.9220	0.9092
		Density	0.8120	0.8085	0.7997	0.7982	0.7913	0.7843	0.7703	0.7570	0.7564
D5	25T0708	Kinematic	7.056	6.086		4.137	3.321				1.493
		Dynamic	5.791	4.975		3.340	2.658				1.145
		Density	0.8207	0.8174		0.8073	0.8005				0.7666
S6	25T0701	Kinematic	10.39	8.792	6.048	5.706	4.470	3.601	2.500	1.884	1.855
		Dynamic	8.588	7.237	4.927	4.639	3.604	2.880	1.966	1.457	1.434
		Density	0.8266	0.8231	0.8146	0.8130	0.8063	0.7998	0.7863	0.7736	0.7730
D10	25T0709	Kinematic	14.39	12.42	8.207	7.693	5.880	4.461	3.115	2.292	2.255
		Dynamic	12.44	10.31	6.743	6.309	4.784	3.745	2.473	1.791	1.761
		Density	0.8333	0.8330	0.8216	0.8201	0.8136	0.8070	0.7939	0.7814	0.7808

\* IATA additional transport costs are applicable

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Type	Ordering code		Temperature								
			20°C 68°F	25°C 77°F	37.78°C 100°F	40°C 104°F	50°C 122°F	60°C 140°F	80°C 176°F	98.89°C 210°F	100°C 212°F
N10	25T0730	Kinematic	20.92	17.01	10.70	9.957	7.395	5.701	3.693	2.650	2.602
		Dynamic Density	17.82 0.8516	14.43 0.8484	8.989 0.8401	8.350 0.8236	6.153 0.8320	4.706 0.8254	3.000 0.8124	2.120 0.8000	2.080 0.7995
S20	25T0702	Kinematic	43.51	34.11	19.79	18.18	12.82	9.447	5.703	3.892	3.820
		Dynamic Density	37.11 0.8528	28.98 0.8495	16.65 0.8414	15.27 0.8400	10.69 0.8336	7.815 0.8272	4.645 0.8145	3.124 0.8026	3.058 0.8017
N35	25T0731	Kinematic	85.18	65.07	35.51	32.30	21.84	15.51	8.805	5.743	5.617
		Dynamic Density	72.84 0.8551	55.43 0.8519	29.96 0.8438	27.22 0.8425	18.26 0.8361	12.87 0.8300	7.198 0.8175	4.0627 0.8057	4.522 0.8050
S60	25T0703	Kinematic	160.5	118.7	60.16	54.07	34.87	23.77	12.62	7.855	7.660
		Dynamic Density	138.4 0.8623	102.0 0.8591	51.21 0.8512	29.42 0.8498	29.42 0.8436	19.91 0.8374	10.41 0.8251	6.390 0.8135	6.225 0.8127
N100	25T0732	Kinematic	331.5	238.3	113.1	100.6	62.01	40.63	20.20	11.98	11.65
		Dynamic Density	287.6 0.8676	206.0 0.8644	96.89 0.8567	86.05 0.8554	52.66 0.8493	34.26 0.8432	16.79 0.8312	9.821 0.8198	9.542 0.8191
S200	25T0704	Kinematic	649.2	456.2	204.9	180.6	107.1	67.77	31.78	18.03	17.49
		Dynamic Density	565.7 0.8714	396.2 0.8684	176.3 0.8606	155.2 0.8592	91.39 0.8533	57.43 0.8474	26.55 0.8353	14.86 0.8242	14.40 0.8235
D500	25T0711	Kinematic	829.5	578.1		233.6	130.8		37.54		20.33
		Dynamic Density	723.6 0.8723	502.5 0.8693		192.3 0.8602	111.7 0.8542		31.40 0.8364		16.77 0.8247
N350	25T0733	Kinematic	1235	851.2	365.5	319.9	183.8	112.9	50.20	27.33	26.48
		Dynamic Density	1078 0.8727	740.3 0.8697	315.1 0.8621	275.3 0.8607	15701 0.8549	95.85 0.8490	42.03 0.8372	22.58 0.8261	21.86 0.8255
D1000	25T0713	Kinematic	1696	1159		422.8	238.8				32.15
		Dynamic Density	1483 0.8744	1010 0.8715		364.7 0.8627	204.6 0.8568				26.61 0.8278
S600	25T0705	Kinematic	2146	1455	598.0	520.0	289.6	172.8	73.11	38.13	37.05
		Dynamic Density	1880 0.8762	1271 0.8734	517.8 0.8659	449.6 0.8646	248.7 0.8587	147.4 0.8529	61.51 0.8413	31.81 0.8303	30.74 0.8297
N1000	25T0734	Kinematic	4490	2981	1165	1004	537.8	309.0	122.2	60.70	58.52
		Dynamic Density	3955 0.8809	2618 0.8781	1014 0.8707	872.8 0.8693	464.4 0.8636	265.1 0.8580	103.5 0.8466	50.74 0.8359	48.87 0.8351
S2000	25T0706	Kinematic	7946	5222	1983	1700	889.6	499.2	188.8	90.25	86.80
		Dynamic Density	7015 0.8828	4595 0.8800	1731 0.8727	1481 0.8714	770.3 0.8659	429.4 0.8601	160.3 0.8488	75.65 0.8382	72.70 0.8376
D5000	25T0714	Kinematic	8626	5644		1818	945.2				89.93
		Dynamic Density	7628 0.8843	4975 0.8815		1587 0.8728	819.7 0.8672				75.37 0.8390
D7500	25T0735	Kinematic	13383	8702	3207	2735	1397	765.5			122.0
		Dynamic Density	11859 0.8861	7686 0.8833	2809 0.8760	2393 0.8749	1214 0.8692	661.2 0.8637			102.6 0.8413
N4000	25T0735	Kinematic	17966	11627	4216	3589	1811	981.2	345.9	155.4	149.1
		Dynamic Density	15957 0.882	10296 0.8855	3702 0.8780	3147 0.8769	1578 0.8713	849.4 0.8657	295.6 0.8547	131.2 0.4420	125.8 0.8436
S8000	25T0707	Kinematic	35264	22566	7981	6748	3327	1760	588.8	252.5	241.4
		Dynamic Density	31427 0.8912	20050 0.8885	7034 0.8813	5938 0.8800	2910 0.8747	1530 0.8692	505.4 0.8584	214.2 0.8482	204.6 0.8476
N15000	25T0736	Kinematic	70582	44855	15541	13087	6342	3289	1054	433.5	413.1
		Dynamic Density	63157 0.8948	40006 0.8919	13754 0.8850	11566 0.8838	5571 0.8784	2872 0.8731	908.9 0.8623	369.5 0.8523	351.8 0.8517
S30000	25T0722	Kinematic		79747	27285	22946	10993	5623	1756	700.1	666.5
		Dynamic Density		71382 0.8951	24237 0.8883	20355 0.8871	9693 0.8817	4929 0.8765	1521 0.8659	599.3 0.8560	570 0.8552

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