VISCOSITY CONVERSION TABLES *by* NORCROSS CORPORATION

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CENTIPOISE	1.00	2.00	3.00	5.00	7.50	10.0	15.0	20.0	25.0	30.0	40.0	50.0	60.0	70.0	80.0	90.0	100	125	150	175	200	225	250	275	300	325	350	375	400	500	600	700	800	900	1000	1250	1500	1750	2000	2500	3000	3500	4000	4500	5000	6000	7000	8000	9000	10K	References
'Ultra Low' Cup	53	68	84																																																Notes
Shell Cup #1	17	21.5	26	35	46	57																																													A-2481-TAW / Note 2
Shell Cup #2					18.3	22	30.4	39	47	56	46.6																																							A-2482-TAW / Note 3
Shell Cup #2.5							19	25	30	35.6	28.6	57																																						A-3225-TAW / Note 2
Shell Cup #3									18.6	22	30	35	42	48	55																																				A-2483-TCW / Note 3
Shell Cup #3.5												24.6	29.2	34	38.4	43	47.8	59.4																																A-2666-TAW / Note 2
Shell Cup #4													18	21	24	27	30	37	45	52	60																														A-2484-TAW / Note 2
Shell Cup #5																	16	20	24	28	32	36	40	44	48	52	56	60	64																						A-2485-TAW / Note 2
Shell Cup #6																								17.5	19	20.5	22.5	24	25	31.5	37.5	44	50	56.5	63	78															A-2486-TAW / Note 2
Zahn Cup #1					30.5	32	35	38	42	45	52	60	68																																					See Note 1
Zahn Cup #2								18	19	20	22.5	25	28	30	34	38	43	53	63	72																														See Note 1
Zahn Cup #3																	17	19.5	22	24.5	27	30	32	35.5	38	41	43	45	48.5	58	70																			See Note 1
Zahn Cup #4																				17	18	19.5	21	22.5	24	26	28	30	32	38	45	51	54	65	70															See Note 1
Zahn Cup #5																									17	18.5	20	21	22.5	27	31	35	40	45	49	60														See Note 1
Ford Cup #3														32	37	40	43	53	63	73	83	93	103	113	120	130																								See Note 1
Ford Cup #4														20	22	25	28	35	40	48	55	62	70	76	82	90	98	103																						See Note 1
ISO Cup #4										26	33	39	46	53	60																																			A-4004-T
DIN Cup #4												20	22	24	26	28	30	35	40	46	50	56	61	71																										A-4286-T
AFNOR Cup #4												20	22	24	26	28	30	35	40	46	50	56	61	71																										File Notes
Norcross Cup #1	31	36	40	53	70	87																																												A-1920-T
Norcross Cup #2			19	23	28	34	45	55	67	76																																								A-1920-T
Norcross Cup #3									17	20	25	30	35	40	45	50	55	68	79																															A-1920-T
Norcross Cup #4																	18	22	27	32	36	40	44	48	53	57	61	65	68	85																				A-1920-T
Norcross Cup #5																												20	22	26	31	36	41	45	50	62	74	85													A-1920-T
Norcross Cup #6																																					19	22	24	30	34	40	45	50	55	66	76	86	100		A-1920-T
SSU	31			40		60	80	100	115	130	180	220	270	310	360	410	450	570	690	810	940	1050	1190	1300	1400	1520	1630	1745	1860	2330	2780	3250	3720	4180	4650	5820	7000	8000	9000	11000	13400	16270								A-6311-R
SSF							13	15	18	20	23	27	32	35	40	44	48	60	70	82	94	105	119	130	140	152	163	174	186	233	278	325	372	418	465	582	700	800	900	1100	1340	1627								Note 1
Redwood #1	29				45			85								340					765								1660								5900		7640											Note 1
Dudley	35	36	37.5	40	43	46.5	53	59.5	66	73																																								Bubble Type
Gardner Holt						A-4	A-3		A-2	A-1	A		B		C		D	E	G		H	I	J		L	M			P	S	U			V	W	X		Y		Z-1		Z-2		Z-3		Z-4				Z-5	File Notes
Mac Michael								125				190			256		330				520				741																									File Notes
Sears Cup											19	20	21	23	24	26	27		36		44																													File Notes
Stormer 100						3	5	6	8	10	13	17	20	24	27	30	34	41	49	57	64	73	80	87	100	106	114	120	126	150																			File Notes
Fisher Cup #1						20	25	30	35	39	48																																							File Notes
Fisher Cup #2								15	16.5	18	21	25	29	33.5	38	44	51																																	File Notes
B4 Cup								17	18	19																																								File Notes
M8BO - C Piston	746	744	744	742	742	740	740	738	738	738	735	735	735	735	735	735	730	730	730	725	725	725	725	725	725	725	725	720	720	720	720	715	715	715	715	715	710	710	700	700	700	680	680	680	680	680	680	680	680	680	Note 4

Example: A sample which drains in 39 seconds, from a #2 Shell Cup, has a viscosity of 20 centipoise

See Also A-4114-TW

Please Note:

The USA Flexographic Technical Association published a study by the National Association of Printing Ink Manufacturers (NAPIM) in their June 1988 Issue of Flexo.

This study compares and contrasts the Zahn / Shell / ISO & Din Cups.

Copies of this can be obtained by requesting Reprint 0142 from Norcross Corporation.

Notes:

Note 1: This data is based upon a table from Worthington Pump, 1956 which was based upon original test data no longer available. Not all 'Zahn' Cups match this data.

Note 2: This data is based upon original mechanical design of Shell Chemical. Equations in ASTM 4212 do not match actual values, as they were based upon prior data plots that are no longer available and do not match the actual cups.

Note 3: The 2 1/2 and 3 1/2 Shell Cup were introduced by Norcross in the 1970's to provide additional viscosity range coverage.

Note 4: Typical piston size recommended for use in the Model M8BO process viscometer (witah length code C - other lengths may require different pistons) - Contact Norcross for information.

Note 5: Data based on S.G. =1.0
Centipoise = Centistokes X S.G.