

inches

4 3 2 1 0 1 2 3 4

centimeters

10 9 8 7 6 5 4 3 2 1 0 1 2 3 4 5 6 7 8 9 10

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
L*	39.12	65.43	49.87	44.26	55.56	70.82	63.51	39.92	52.24	97.06	92.02	87.34	82.14	72.06	62.15	
a*	13.24	18.11	-4.34	-13.80	9.82	-33.43	34.26	11.81	48.55	-0.40	-0.60	-0.75	-1.06	-1.19	-1.07	
b*	15.07	18.72	-22.29	22.85	-24.49	-0.35	59.60	-46.07	18.51	1.13	0.23	0.21	0.43	0.28	0.19	
Density											0.04	0.09	0.15	0.22	0.36	0.51

	16 (M)	17	18 (B)	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.25	38.62	28.86	16.19	8.29	3.44	31.41	72.46	72.95	29.37	54.91	43.96	82.74	52.79	50.87
a*	-0.16	-0.18	0.54	-0.05	-0.61	-0.23	20.98	-24.45	16.83	13.06	-38.91	52.00	3.45	50.88	-27.17
b*	0.01	-0.04	0.60	0.73	0.19	0.49	-19.43	55.93	68.80	-49.49	30.77	30.01	81.29	-12.72	-29.46
Density	0.75	0.98	1.24	1.67	2.04	2.42									

Don Williams

Colors by Munsell Color Services Lab

Golden Thread