

MATERIAL	Critical Angle	Refractive Index	Crown angle	Pavillion angle	S.G. Range	Average S.G.
Andalusite	38.00	1.63 - 1.66	39.00	42.00	3.1 - 3.2	3.15
Andradite	32.00	1.85 - 1.89	37.00	42.00	3.5 - 4.3	3.90
Apatite	37.00	1.62 - 1.67	39.00	42.00	3.1 - 3.4	3.25
Apophyllite	41.00	1.53 - 1.54	42.00	43.00	2.3 - 2.4	2.35
Beryl	39.00	1.57	42.00	43.00	2.7 - 2.9	2.80
Cassiterite	30.00	2.03 - 2.10	36.00	40.00	7.00	7.00
Chrysoberyl	34.50	1.74 - 1.75	39.00	42.00	3.73	3.73
Corundum	34.40	1.76	38.00	42.00	3.96 - 4.05	4.01
Cubic Zirconia	30.00	1.96 - 2.16	35.00	41.00	5.7 - 6.0	5.85
Danburite	38.00	1.63	42.00	39.00	3.00	3.00
Diamond	25.00	2.41	35.00	42.00	3.50	3.50
Diopside	37.00	1.66 - 1.77	40.00	41.00	3.2 - 3.6	3.40
Epidote	35.00	1.72 - 1.80	39.00	41.00	3.4 - 3.5	3.45
Feldspars	41.00	1.52 - 1.58	42.00	43.00	2.6 - 2.8	2.70
Flourite	44.00	1.43	43.00	45.00	3.20	3.20
Garnet Almandine	33.50	1.83	38.00	42.00	4.0 - 4.3	3.15
Garnet Andradite	32.00	1.89	38.00	42.00	3.8 - 3.9	3.85
Garnet Grossular	35.00	1.73	38.00	41.00	3.6 - 3.8	3.70
Garnet Pyrope	36.00	1.71	38.00	41.00	3.6 - 3.8	3.70
Garnet Rhodolite	34.30	1.75	37.00	42.00	3.6 - 3.8	3.70
Garnet Spessart	36.00	1.80	38.00	42.00	4.1 - 4.2	4.15
Garnet Uvarovite	32.00	1.86	37.00	42.00	3.4 - 3.8	3.60
GGG	30.00	1.97	37.00	41.00	6.5 - 7.0	6.75
Glass	Variable	1.44 - 1.68	42.00	43.00	2.2 - 6.3	2.50
Idocrase	36.00	1.70 - 1.75	40.00	42.00	3.3 - 3.4	3.35
Iolite	41.00	1.52 - 1.68	42.00	43.00	2.5 - 2.8	5.65
Kyanite	36.00	1.71 - 1.73	40.00	42.00	3.5 - 3.6	3.55
Labradorite	39.00	1.57 - 1.59	42.00	43.00	2.6 - 2.8	2.70
Moldavite	42.00	1.48 - 1.52	42.00	43.00	2.3 - 2.6	2.45
Opal	43.30	1.44 - 1.46	41.00	45.00	2.0 - 3.0	2.50
Peridot	37.00	1.64 - 1.68	39.00	42.00	3.2 - 4.4	3.80
Petalite	42.00	1.50	42.00	43.00	2.40	2.40
Prehnite	38.00	1.61 - 1.66	40.00	42.00	2.9 - 3.0	2.95
Quartz	40.00	1.54 - 1.55	41.00	42.00	2.65	2.65
Rutile	22.00	2.61 - 2.90	35.00	42.00	4.2 - 5.5	4.85
Scapolite	40.00	1.54 - 1.56	40.00	42.00	2.5 - 2.7	2.60
Spinel	33.00	1.72	40.00	41.00	3.5-4.1	3.80
Spodumene	37.00	1.65 - 1.68	39.00	41.00	3.0 - 3.2	3.10
Strontium titanate	25.00	2.41	35.00	41.00	5.10	5.10
Tanzanite (zoisite)	35.00	1.72 - 1.80	39.00	41.00	3.1 - 3.5	3.30
Topaz	38.00	1.61 - 1.64	39.00	42.00	3.5 - 3.6	3.55
Tourmaline	38.00	1.62 - 1.66	39.00	42.00	2.9 - 3.3	3.10
YAG	33.00	1.83	37.00	40.00	4.60	4.60
Zircon (High type)	32.00	1.92 - 1.98	35.00	41.00	4.6 - 4.7	4.65
Zircon (low type)	34.00	1.78 - 1.86	39.00	42.00	3.9 - 4.2	4.05