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INDEX OF REFRACTION

Thickness is defined in terms of Index of Refraction

Is a ratio of the speed of light in air compared to the speed of light in the medium. The higher the number the more that material will bend light. Because of its improved efficiency at bending light that material can provide the same prescription value as a lower index (a less efficient light bending medium) in a thinner profile. All other factors being equal the greater the index of refraction the thinner the lens will be. A poly lens with an index of 1.59, all other factors being equal, will be thinner than a lower index plastic of a 1.50 index

Material	Index	ABBE	Specific Gravity	UVB/ UVA
Plastic	1.50	58	1.32	100% 90%
Poly	1.59	30	1.20	100% 100%
Trivex	1.53	44	1.11	100% 100%
1.60 (MR-8)	1.60	41	1.30	100% 100%
1.60 (MR-6)	1.60	36	1.34	100% 100%
1.67 (MR-7)	1.67	32	1.35	100% 100%
1.67 (MR-10)	1.67	32	1.37	100% 100%
1.70	1.70	36	1.41	100% 100%
1.74	1.74	33	1.47	100% 100%

SPECIFIC GRAVITY

Weight is defined in terms of Specific gravity

Is a measure of physical density expressed in grams per cubic centimeter. In the case of specific gravity the lower the value the lighter the lens. Comparing two equal lenses, one of plastic with a specific gravity of 1.32 and one of poly with a specific gravity of 1.20—the poly will weigh less.