
Refractive index of various substances

Gemstones

Agate 1.544 - 1.553	Jet 1.660
Alexandrite 1.746 - 1.755	Kunzite 1.660 - 1.676
Almandine 1.75 - 1.83	Labradorite 1.560 - 1.572
Amber 1.539 - 1.545	Lapis Lazuli 1.50 - 1.55
Amethyst 1.532 - 1.554	Moonstone 1.518 - 1.526
Ammolite 1.52 - 1.68	Morganite 1.585 - 1.594
Andalusite 1.629 - 1.650	Obsidian 1.50
Apatite 1.632 - 1.42	Opal, Black 1.440 - 1.460
Aquamarine 1.567-1.590	Opal, Fire 1.430 - 1.460
Axenite 1.674 - 1.704	Opal, White 1.440 - 1.460
Beryl 1.57 - 1.60	Oregon Sunstone 1.560 - 1.572
Beryl, Red 1.570 - 1.598	Padparadja 1.760 - 1.773
Chalcedony 1.544 - 1.553	Pearl 1.53 - 1.69
Chrome Tourmaline, 1.61 - 1.64	Peridot 1.635 - 1.690
Citrine 1.532 - 1.554	Quartz 1.544 - 1.553
Clinohumite 1.625 - 1.675	Ruby 1.757 - 1.779
Coral 1.486 - 1.658	Sapphire 1.757 - 1.779
Crystal 2.000	Sapphire, Star 1.760 - 1.773
Crysoberyl, Catseye 1.746 - 1.755	Spessarite 1.79 - 1.81
Danburite 1.627 - 1.641	Spinel 1.712 - 1.717
Diamond 2.417	Spinel, Blue 1.712 - 1.747
Emerald 1.560 - 1.605	Spinel, Red 1.708 - 1.735
Emerald Catseye 1.560 - 1.605	Star Ruby 1.76 - 1.773
Flourite 1.434	Tanzanite 1.690-1.7
Garnet, Grossular 1.72 - 1.80	Tanzanite 1.692 - 1.700
Garnet, Andradite 1.88 - 1.94	Topaz 1.607 - 1.627
Garnet, Demantiod 1.880 - 1.9	Topaz, Imperial 1.605-1.640
Garnet, Mandarin 1.790 - 1.8	Tourmaline 1.603 - 1.655
Garnet, Pyrope 1.73 - 1.76	Tourmaline, Blue 1.61 - 1.64
Garnet, Rhodolite 1.740 - 1.770	Tourmaline, Catseye 1.61 - 1.64
Garnet, Tsavorite 1.739 - 1.744	Tourmaline, Green 1.61 - 1.64
Garnet, Uvarovite 1.74 - 1.87	Tourmaline, Paraiba 1.61 - 1.65
Hauyn 1.490 - 1.505	Tourmaline, Red 1.61 - 1.64
Iolite 1.522 - 1.578	Zircon 1.777 - 1.987
Jade, Jadeite 1.64 - 1.667	Zirconia, Cubic 2.173 - 2.21
Jade, Nephrite 1.600 - 1.641	

Common Transparent Materials

Eye, Aqueous humor 1.33	Glass, phosphosilicate glass (PSG) 1.47
Eye, Cornea 1.38	Glass, Fused Silica 1.459
Eye, Lens 1.41	Glass, Pyrex 1.474
Eye, Vitreous humor 1.34	Lucite 1.495
Glass, Arsenic trisulfide 2.04	Nylon 1.53
Glass, Borosilicate glass (BSG) 1.523 – 1.526	Obsidian 1.50
Glass, Crown (common) 1.52	Plastic 1.460 - 1.55
Glass, Flint, 29% lead 1.569	Plexiglas 1.488
Glass, Flint, 55% lead 1.669	Salt 1.516
Glass, Flint, 71% lead 1.805	

Vacuum

Vacuum 1.00000

Gases

Air 1.00027

Common Liquids

Acetone 1.36	Oil, Neroli 1.482
Alcohol, Ethyl (grain) 1.36	Oil, Orange 1.473
Alcohol, Methyl (wood) 1.329	Oil, Safflower 1.466
Beer 1.345	Oil, vegetable (50° C) 1.47
Carbonated Beverages 1.34 - 1.356	Oil of Wintergreen 1.536
Fruit Juice	Rum, White 1.361
Chlorine (liq) 1.385	Shampoo 1.362
Cranberry Juice (25%) 1.351	Sugar Solution 30% 1.38
Glycerin 1.473	Sugar Solution 80% 1.49
Honey, 13% water content 1.504	Turpentine 1.472
Honey, 17% water content 1.494	Vodka 1.363
Honey, 21% water content 1.484	Water (0° C) 1.33346
Ice 1.309	Water (100° C) 1.31766
Milk 1.35	Water (20° C) 1.33283
Oil, Clove 1.535	Whisky 1.356
Oil, Lemon 1.481	

Metals

Aluminum 1.39	Nickel 1.08
Copper 2.43	Platinum 2.33
Gold 0.166	Silver 1.35
Mylar 1.65	Titanium 2.16

data in part after www.RobinWood.com (Sept. 05, 2003)