

# GEMSTONE CHARACTERISTICS

GEMSTONE	REFRACTIVE INDEX	SPECIFIC GRAVITY	HARDNESS	TOUGHNESS	SETTING	POLISHING	TORCH	BOILING	STEAMING	ULTRASONIC	ACID	ENHANCEMENT METHODS	FREQUENCY USED	STABILITY	SPECIAL CARE
Alexandrite	1.746-1.755	3.73(+.02)	H-8.5	T-GOOD	VG	E	F	G	G	G	G	None			
Amethyst	1.54-1.553	2.66(+.01)	H-6.5-7	T-GOOD	G	G	F	F	F	G	F	Heated to lighten color	Occasionally	Excellent	
Apatite	1.534-1.638	3.18(+.05)	H-5	T-FAIR	P	F	P	P	F	F	P	None known			Avoid heat, chemical & ultrasonic
Aquamarine	1.577-1.583	2.67-2.84	H-7.5-8	T-FAIR	F	G	P	P	F	F	G	Heated to improve color	Commonly	Very Good	
Citrine	1.54-1.355	2.66(+.01)	H-7	T-GOOD	G	G	F	F	F	G	F	Produced by heating Amethyst	Commonly	Excellent	
Cubic Zirconia	2.15(+.030)	5.90(+.20)	H-8.75	T-GOOD	E	G	E	E	E	E	E	None known			
Diamond	2.417	3.52(+.01)	H-10	T-GOOD	E	G	E	E	E	E	E	Laser drilled to improve appearance	Commonly	Stable	
Emerald	1.577-1.583	2.67-2.84	H-7.5-8	T-FAIR	P	F	P	P	P	P	P	Oiled to improve appearance	Commonly	Poor to Fair	Avoid heat, chemical & ultrasonic
Garnet	1.72-1.875	3.30-4.18	H-6.5-7.5	T-GOOD	G-F	G	P	P	F	G	P	None known			
Isle	1.53-1.55	2.58-2.66	H-7.7-5	T-EXCEL	G	G	G	G	G-F	G-F	G	None known			
Jade - Jadelite	1.654-1.667	3.30-3.36	H-6.5-7	T-EXCEL	E	G	G	G	G	G	G	Impregnated with wax	Commonly	Very Good	Avoid chemicals and heat
Jade - Nephrite	1.600-1.627	2.90-3.02	H-6.5-5	T-POOR	E	G	G	G	G	G	G	Dyeing to improve green color	Occasionally	Variable	Avoid chemicals
Kunzite	1.660-1.676	3.18(+.03)	H-6-7	T-GOOD	P	F	P	P	F	F	F	Irradiation to improve color	Unknown	Pink fades	Avoid strong light & ultrasonic
Lapis Lazuli	about 1.50	2.40-2.90	H-5-6	T-GOOD	G	P	P	P	P	P	P	Impregnated with wax or oil dyed	Commonly	Fair	Avoid ultrasonic and heat
Moonstone	1.520-1.525	2.56-2.62	H-6-6.5	T-POOR	F	P	P	P	P	P	P	None known			Avoid ultrasonic and steamer
Opal	1.45	1.25-2.22	H-5.5-6.5	T-POOR	P	P	P	P	P	P	P	None known			Avoid heat, ultrasonic & steamer
Pearl-Cultured	1.52-1.66	2.60-2.78	H-3-4	T-GOOD	G	P	P	P	P	P	P	Bleached to improve color	Usually	Stable	Avoid cosmetics and chemicals
Peridot	1.654-1.690	3.31-3.48	H-6.5-7	T-POOR	P	P	P	P	F	F	P	None known			Avoid sudden temperature changes
Ruby	1.762-1.770	4.00(+.03)	H-9	T-GOOD	VG	E	G	G	G	G	G	Heated to improve color	Commonly	Stable	Avoid s. flux and pickle with borax
Sapphire	1.762-1.770	4.00(+.03)	H-9	T-GOOD	VG	E	F	G	G	G	G	Heated to improve color	Usually	Stable	Avoid s. flux and pickle with borax
Spinel	1.718	3.57-3.90	H-8	T-FAIR	G-F	G	F	F	G	G	G	None known			
Tanzanite	1.691-1.704	3.30(+.10)	H-6.5	T-POOR	P	F	P	P	F	F	F	Heated to produce blue color	Routinely	Stable	Avoid ultrasonic and temp changes
Topaz	1.619-1.627	3.53(+.04)	H-8	T-POOR	P	G	P	P	F	G	G	Blue irradiated to produce color	Commonly	Stable	Avoid heat and ultrasonic
Tourmaline	1.624-1.644	3.01-3.21	H-7.75	T-FAIR	F	G	F	F	F	G	F	Heated to improve color	Commonly	Stable	Avoid heat and sudden temp changes
Turquoise	1.61-1.65	2.60-2.80	H-5-6	T-FAIR	G	G-F	P	P	P	P	P	Stabilized with plastic	Commonly	Stable	Avoid heat and ultrasonic
Zircon	1.810-1.984	3.93-4.73	H-6-6.5	T-POOR	P	F	P	P	F	F	F	Heating produces blue from brown	Always	Stable	Avoid rough handling

E = Excellent, VG = Very Good, G = Good, F = Fair, P = Poor  
 None = Only one commonly used enhancement is listed for each stone.