

Jadeite Information

Jade Refers to Two Chemically Different Stones: Jadeite & Nephrite

	Jadeite	Nephrite
Refractive Index	1.66-1.68	1.60-1.63
Specific Gravity	3.30-3.38	2.90-3.10
Hardness (Mohs)	6.5-7.0	6.0-6.5
Toughness (resistance to breakage)	Second Toughest Gem	Toughest Gem
Surface Luster	Vitreous, sometimes greasy	Greasy, sometimes vitreous
Fracture Structure	Granular, possibly splintery	Splintery, possibly granular
Chemical Composition	Silicate of sodium & aluminum	Silicate of calcium & magnesium
Texture	Interlocking granular structure (microcrystalline)	Interwoven fibrous structure (cryptocrystalline)

Traditional Names for Green Jadeite

Imperial	Finest color, high translucency, pure, even texture
Emerald	Fine color, good translucency, good texture
Apple	Light to intense color, usually opaque, even to mostly even texture
Commercial	Light color, opaque, usually grainy/mottled texture
Spinach	Dark color, usually opaque, often mottled/streaked texture
Moss-in-snow	White base color with medium to dark green streaks/spots
Chloromelanite	Very dark to almost black color, often translucent

Main Quality/Value Factors for Jadeite In Order of Importance

1.	Color	Most desirable color is intense & saturated in the proper hue
2.	Translucency	From opaque to highly translucent. The higher the translucency, the higher the value.
3.	Texture	Consistency of color is desired although intense streaks or spots can increase value. Smooth surface appearance with no undercutting or internal fractures is best.

A combination of all three factors at their best yields the finest jadeite gems.

Jadeite Colors - In Order of Value

Green	Commercial to very fine
Lavender	Commercial to fine
Ice	Good to fine
Black	Fair (uneven) to good (even)
Red	Fair to very good
Yellow	Fair to good
White	Fair to good
Grey	Light (flannel) to dark (charcoal) minimal value difference

Quality ranges are general. Exceptions occur.

Jadeite Simulants Info

Material	R.I.	Comments
Dyed Green Quartz	1.54	By far the most common jadeite simulant
Chalcedony	1.54	Often banded, Chrysoprase is the common green variety
Soapstone	1.53-1.58	Very soft stone, used only for carvings, easily scratched with a knife
Serpentine	1.56-1.57	Softer than jadeite, often used for carvings
Aventurine	1.54	Chromium mica platelets in green quartz
Translucent Grossularite Garnet	1.71	Rare, but most convincing of jadeite simulants
Glass	Varies	Gas bubbles usually visible (almost always at 10x)

Jade is probably the most misidentified of all important gemstones. It is not unusual to find other "hard stones" sold as one form or another of 'jade'. "Australian jade" and "Korean jade" are two examples of stones represented as simply 'jade'.

Other common jade simulants are carnelian for red jade, muscovite or zoisite for lavender jade. In addition, watch for calcite, prehnite, idocrase, jasper, malachite and maw-sit-sit.

Treated Jadeite Info

'A' Jade	Natural, untreated jadeite (only a traditional surface wax used for centuries is accepted)
'B' Jade	Bleached and polymer impregnated jadeite
'C' Jade	Bleached, dyed and polymer impregnated jadeite
'D' Jade	Dyed jadeite, no polymer (almost always pre-polymer era)

A Brief History

Dyed jadeite has existed since at least the mid-1900s, but in the early 1980's a new kind of jadeite appeared in the markets of East Asia. This material had a light, bright body color and good translucence. Prices were too reasonable for such quality based on values at the time. This marked the beginning of what has since been called 'B' jade, which continues to be by far the most common form of treated jadeite.

Mason Kay utilizes infrared spectroscopy on premises.

Mason-Kay Only Deals In Untreated, Natural Jadeite

Indications of 'B' Jade Without Infrared Spectroscopy - the only conclusive test for polymer impregnation

1.	Price/Value Relationship	If price is far below current market value, 'B' Jade should be suspected
2.	Cutting Style	Flat bottom cabs, caliber sizes, crude carvings, are often signs of 'B' Jade. Better, natural material is always cut to the best use of the rough
3.	Sonority	A natural, one-piece jadeite bangle will 'ping' when suspended on a string and struck lightly with another hard object. The finer the structure, the longer the 'ping' will resonate. 'B' jade will have little or no 'ping' (although a natural included or fractured bangle may have little or no 'ping')

Care & Durability

The proper way to clean jade is to simply apply a mild, soapy water solution. A small, soft bristled toothbrush is best for cleaning the crevices within carvings. Avoid common jewelry cleaners like ultrasonic equipment, as they can cause problems.

It is best to remove your jade rings before gardening. The quartz dust in soil is a powerful abrasive.

Never steam jade - Jewelers usually steam faceted stones after sizing and working on pieces.

FTC Disclosure Guidelines

The Federal Trade Commission (FTC) requires sellers to disclose if "the treatment has a significant effect on the stone's care or value." This ruling clearly requires disclosure of 'B' treated jade by the seller before the sale takes place.