



Gemstone

Essentials

Understanding the world of gemstones has never been easier!

Find helpful charts, in-depth information on the most popular gemstones and a plethora of design inspirations within these pages!



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Gemstones—it's what we're known for. Let us help answer all of your questions about these amazing and beautiful jewelry essentials!

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10 Common Gemstones for Jewelry Makers

Watch a quick, fun video all about the most common gemstones. From beginner to seasoned pro, there's something for everyone to learn.

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Gemstone Grading

There are a lot of steps to grade a gemstone. Each step of grading focuses on a different feature and has many details that create the overall grade determination. It can be difficult to understand gemstone grades without training, so with the help of the Fire Mountain Gems and Beads gemologists we've created a chart to help clarify the basics.

Images of both amethyst and lapis lazuli are shown to illustrate both transparent and opaque versions of each grade.

Grade	Hue and Color Saturation	Color Tone	Inclusions	Transparency and Opacity	Cutting, Surface and Drilling
<p>A</p> 	<ul style="list-style-type: none"> Color is expected hue Color saturation vivid and even throughout 	<ul style="list-style-type: none"> Rich, but not so dark as to be near the far end of the spectrum 	<ul style="list-style-type: none"> None to few (small and hard to spot with the naked eye if any) 	<ul style="list-style-type: none"> As expected for the specific stone 	<ul style="list-style-type: none"> Cutting/shape uniform Surface has a smooth luster, high polish and no cracks or chips Drilled hole even and uniform
<p>B</p> 	<ul style="list-style-type: none"> Color is expected hue, less vivid Color saturation fairly even throughout 	<ul style="list-style-type: none"> Good, but may be lighter or darker than A-grade 	<ul style="list-style-type: none"> Few, but small and unobtrusive 	<ul style="list-style-type: none"> May not have the clarity or opacity of the same stone in an A-grade 	<ul style="list-style-type: none"> Cutting/shape may exhibit slight variances Surface has medium luster/polish with minimal cracks or chips Drilling generally uniform
<p>C</p> 	<ul style="list-style-type: none"> Color within expected hue, but not vivid Color saturation may be uneven 	<ul style="list-style-type: none"> Significantly lighter or darker than expected—near ends of the spectrum 	<ul style="list-style-type: none"> Inclusions or matrix mineral content more apparent and frequent (easily visible to the naked eye) 	<ul style="list-style-type: none"> May vary greatly from what is expected 	<ul style="list-style-type: none"> Cutting/shape exhibits variances Surface has medium to low luster/polish with apparent cracks or chips Drilling may lack uniformity
<p>D</p> 	<ul style="list-style-type: none"> Generally the expected color Saturation low and very uneven 	<ul style="list-style-type: none"> Can be so dark it appears black or so light it appears colorless 	<ul style="list-style-type: none"> Frequent and greatly affecting the overall look of the stone 	<ul style="list-style-type: none"> Stones expected to be transparent may be opaque or be heavily included Stones expected to be opaque may have less original and more "other" mineral content, causing more transparency 	<ul style="list-style-type: none"> Cutting/shape can be irregular Surface has poor luster with cracks and chips Drilling can be uneven

There are other factors taken into consideration when grading colored gemstones such as the quality and rarity of the material, enhancements, overall size of the stone, uniformity of shape, quality of cutting/faceting and the combination of graded features.

Gemstone Treatment Guide

We use the following symbols to designate natural, enhanced, synthetic and imitation (manmade) gemstones. All of the symbols used are those described by the American Gem Trade Association (AGTA), of which we are charter members. It is the practice of Fire Mountain Gems to disclose all treatments (also known as enhancements), to the gems we sell (with the exception of normal cutting and polishing).

We also disclose the method of treatment, if known. This disclosure will appear both on the stone's advertising and on the stone's invoice. For the benefit of your customer and your company, we strongly suggest that you follow these guidelines when you sell gemstones and jewelry.

(ASBL) - Assembled

Products made of multiple layers or combinations of manufactured and/or natural materials joined together. Example: opal triplets.

(B) - Bleached

The use of chemical agents to lighten or remove a gemstone's color.

(C) - Coated

Surface treatments to improve appearance, provide color or other special effects.

(D) - Dyed

The introduction of coloring matter into a gemstone to give it new color, intensify present color or improve color uniformity.

(E) - Enhanced

This indicates that this type of gemstone is routinely enhanced. Since many treatments are difficult or impractical to prove definitively, the approach taken in our printed materials and invoices is to assume, unless otherwise indicated, that such treatment has been done to the particular gemstone material being described. If the particular type of treatment is known, that treatment symbol will be stated, rather than the "E" symbol.

(F) - Filling

As a by-product of heat treatment, this is the presence of solidified borax or similar colorless substances which are visible under properly illuminated 10x magnification.

(G) - Gamma/Electron Irradiated

The use of gamma and/or electron bombardment to alter a gemstone's color, which may be followed by a heating process.

(H) - Heated

The use of heat to effect desired alteration of color, clarity and/or phenomena.

(I) - Infilling

The intentional filling of surface-breaking cavities or fractures usually with glass, plastic, opticon with hardeners and/or hardened foreign substances to improve durability, appearance and/or add weight.

(IMIT) - Imitation

Manmade products, fabricated in such materials as glass, ceramic or plastic designed to imitate or resemble the appearance, but not duplicate the characteristic properties, of a natural gemstone.



What is the American Gem Trade Association?

We are committed to promoting and educating consumers and jewelry professionals about colored gemstones and cultured pearls.

Our members come from all corners of the industry. Over 1,000 members strong, AGTA brings together leading colored gemstone and cultured pearl wholesale industry professionals, retail jewelers, colored diamond dealers, estate jewelers, laboratories, appraisers, manufacturers, and associated industry professionals, all who share a passion for colored gemstones and, above all, a respect for the most demanding Code of Ethics in the jewelry industry.

Visit www.agta.org

Gemstone Treatment Guide

continued

(L) - Lasering

The use of lasers and chemicals to reach and alter inclusions in diamonds.

(MM) - Manmade

Fabricated products.

(N) - Natural

Stones which are not currently known to be enhanced.

(O) - Oiling/Resin Infusion

The intentional filling of surface-breaking cavities with a colorless oil, wax, natural resin or unhardened manmade material into fissured transparent/translucent gemstones to improve appearance.

(R) - Irradiated

The use of neutrons, requiring an environmental safety release from the NRC, with the combination of any other bombardment and/or heat treatment to alter a gem's color.

(S) - Stabilized

The use of a colorless bonding agent (commonly plastic) with a porous gemstone to give it durability and improve appearance.

(SYN) - Synthetic

These are manmade materials which have essentially the same optical, physical and chemical properties as a naturally occurring counterpart.

(U) - Diffusion

The use of chemicals in conjunction with high temperatures to produce color and/or asterism (star-like) inclusions.

(W) - Waxing/Oiling

The impregnation of a colorless wax, paraffin and/or oil in porous opaque gemstones to improve their appearance.

Mohs Scale of Hardness

Scale	Hardness	Material Example
1	Can be scratched easily with a fingernail	Sulfur: 1 - 1-1/2
2	Can be scratched with fingernail	Amber: 2 - 3 Ivory: 2 - 4
3	Can be scratched with coin	Pearl: 3 - 4 Coral: 3 - 4 Malachite: 3-1/2 - 4
4	Can be scratched easily with a knife; cannot scratch glass	Rhodochrosite: 4
5	Can be scratched with a knife; can just scratch glass	Lapis Lazuli: 5 - 6 Turquoise: 5 - 6 Opal: 5-1/2 - 6-1/2
6	Can be scratched with a steel file; easily scratches window/bottle glass	Moonstone: 6 - 6-1/2 Tanzanite: 6-1/2 - 7 Peridot: 6-1/2 - 7 Zircon: 6-1/2 - 7-1/2
7	Easily scratches metal, glass and softer stones	Quartz, Citrine, and Amethyst: 7 Tourmaline: 7 - 7-1/2 Garnet: 7 - 7-1/2 Emerald: 7-1/2 - 8
8	Scratches quartz and softer stones	Topaz: 8 Alexandrite: 8-1/2
9	Scratches topaz and softer stones	Ruby: 9 Sapphire: 9
10	Scratches ruby	Diamond: 10

If you resell gems obtained from us, or any gems for that matter, it is your responsibility to provide all information pertinent to the treatment of a gemstone at the time of sale. If a stone is manmade, it is the seller's responsibility to disclose that fact. This information is required by the Federal Trade Commission (FTC).

Failure to identify treatment of natural gemstones when present is an unfair trade practice. Such information is required at each and all levels of jewelry commerce. Failure to inform buyers could subject violators to civil as well as administrative remedies.

Anyone who is uncertain about these requirements may write the American Gem Trade Association:
3030 LBJ Freeway, Suite # 840
Dallas, TX 75234.

Gemstone Cleaning Guide

Follow the guidelines in this Gemstone Cleaning Chart to properly care for and clean your gemstone beads and jewelry. Gemstones require different cleaning methods based on their hardness; this chart lists the recommended cleaning methods for each stone in order to achieve desired results.

Toughness: a material's resistance to breakage. The combination of hardness and toughness largely defines the durability of a gemstone.

Find the full article online!

[cleaninggemstones](#) 

Hardness: a measure of a mineral's resistance to scratching, invented by Austrian mineralogist Friedrich Moh. The scale goes from talc (number 1) being the softest, to diamonds (number 10), one of the hardest substances known by man.

Gemstone	Toughness	Mohs Hardness	Steaming	Ultrasonic	Boiling	Soap	Untreated Cloth
 Agate	Fair	6-1/2 - 7	No	No	Never	Yes	Yes
 Aventurine	Good	7	No	No	Never	Yes	Yes
 Carnelian	Good	7	No	Usually Safe	No	Yes	Yes
 Cubic Zirconia	Good	8-1/2	Safe	Safe	Safe	Safe	Yes
 Emerald	Poor - Good	7-1/2 - 8	No	No	No	Yes	Yes
 Garnet	Good	7 - 7-1/2	No	Usually Safe	No	Yes	Yes
 Jasper	Fair	6-1/2 - 7	No	No	Never	No	Yes
 Lapis Lazuli	Fair	5 - 6	No	No	No	Yes	Yes

Gemstone Cleaning Guide

continued

Gemstone	Toughness	Mohs Hardness	Steaming	Ultrasonic	Boiling	Soap	Untreated Cloth
 Magnesite	Poor	3-1/2 - 5	Never	No	Never	No	Yes
 New "Jade"*	Poor	2-1/2 - 6	Risky	Never	No	Safe	Yes
 Onyx	Good	6-1/2 - 7	Yes	Yes	Never	No	Yes
 Peridot	Fair - Good	6-1/2 - 7	No	Risky	No	Safe	Yes
 Quartz Crystal	Good	7	No	No	Never	Yes	Yes
 Rose Quartz	Good	7	Never	Yes	Never	Yes	Yes
 Sapphire	Excellent	9	Yes	Yes	No	Yes	Yes
 Sodalite	Poor	5 - 6	Risky	Never	Never	Safe	Yes
 Tanzanite	Poor	6 - 7	No	No	No	Yes	Yes
 Tigereye	Good - Excellent	7	Usually Safe	Usually Safe	Never	Yes	Yes

*New "jade" is a trade name for serpentine.

Gemstone Colors Chart

A range of bead materials organized into color families: black and stone, blue and purple, green and aqua, red and pink, white and clear, and more.

Find the full chart online!

[gemstonecolors](http://gemstonecolors.com)



Shades of Black and Stone					
	Gemstone: Black Onyx Color: Black		Gemstone: Snowflake Obsidian Color: Black with white spots		Gemstone: Labradorite Color: Grey-smoky color with blue-green flashes
Shades of Blue and Purple					
	Gemstone: Deep Blue Lapis Lazuli Color: Blue, some pyrite or white calcite (usually dyed)		Gemstone: Amazonite Color: Greenish blue		Gemstone: Amethyst Color: Lavender
Shades of Brown					
	Gemstone: Brown Tigereye Color: Brown		Gemstone: Smoky Quartz Color: Smoky		Gemstone: Picture Jasper Color: Earth tones with terra cotta, red, tan, brown
Shades of Green and Aqua					
	Gemstone: Green Malachite Color: Green stripes and eyes		Gemstone: Moss Agate Color: Translucent with moss-like inclusions		Gemstone: Turquoise Color: Blue, some with black matrix
Shades of Orange and Yellow					
	Gemstone: Amber Color: Amber color - can vary in color from yellow to red to honey brown		Gemstone: Carnelian Color: Orange-red, translucent		Gemstone: Citrine Color: Light to golden yellow
Shades of Red and Pink					
	Gemstone: Red Jasper Color: Brick red		Gemstone: Coral Color: Black, blue, fossil, gold, green, white, pink, purple, red or orange		Gemstone: Rose Quartz Color: Translucent pink
Shades of White and Clear					
	Gemstone: Clear Quartz Color: Clear		Gemstone: Riverstone Color: Grey/cream		Gemstone: White Howlite Color: White with black veining
Multi-Color					
	Gemstone: Multi-Color Tourmaline Color: Multicolored		Gemstone: Unakite Color: Olive-green and subtle pink		Gemstone: Malaysia "Jade" (Malaysia "jade" is a translucent quartz, dyed and well-polished.) Color: Any color

Gemstone Shape Chart

Find the full chart online!

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Shopping for the right beads for your projects can be a hassle when you don't know what to call them! Skip the endless searching and incorrect orders by using the shape definitions and stringing info in this chart.

<p>Bicone</p> 	<p>Chip</p> 	<p>Chip (Hawaiian)</p> 
<p>Cube</p> 	<p>Cube (diagonally drilled)</p> 	<p>Diamond (flat)</p> 
<p>Dog Bone</p> 	<p>Donut</p> 	<p>Double Cone</p> 
<p>Emerald</p> 	<p>Heishi</p> 	<p>Marquise (flat)</p> 
<p>Nugget</p> 	<p>Oval</p> 	<p>Oval (flat)</p> 
<p>Pebble</p> 	<p>Rectangle</p> 	<p>Rectangle (puffed)</p> 
<p>Rondelle</p> 	<p>Round</p> 	<p>Round (puffed flat)</p> 
<p>Saucer</p> 	<p>Teardrop</p> 	<p>Teardrop (puffed)</p> 
<p>Triangle</p> 	<p>Tube (round)</p> 	<p>Tube (square)</p> 

Gemstone Design Inspiration



Design Idea LA36
Full instructions online



Design Idea NJ2V
Video instructions online



Design Idea NE3R
Full instructions online



Design Idea PE23



Design Idea ME3P



Design Idea NA5D
Video instructions online



Design Idea PE25



Design Idea PF4E



Design Idea PH2K



Design Idea J92G
Full instructions online

Take a Deeper Dive...

Gemstone Information Resources

Find many more gemstone resources on our website!

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Articles [View All](#)



The Enduring Popularity of Gemstone Jewelry [View](#)

Discover why gemstone designs are an excellent choice for jewelry makers.



Minerals, Rocks, Gemstones, Crystals - What's the Difference? [View](#)

Unless you are a geologist, you may have a hard time explaining it. Let us help.



Birthstone Jewelry [View](#)

Learn about the history of gemstones associated with each month and their coordinating crystal colors.

Chakras and Their Gemstones [View](#)

In Western understanding, learn what each chakra represents and what gemstones are associated with them.



Gem Notes [View All](#)

Learn about the history, care and metaphysical and geological properties.



Carnelian [View](#)

Important to ancient Roman and Egyptian cultures and found in artifacts circa 1800 BC.



Green Aventurine [View](#)

Believed to ease mental and emotional trauma, bringing calm.



Tiger's Eye [View](#)

Created when quartz forms over crocidolite—a material of fine, bundled fibers.



Rose Quartz [View](#)

Fairly hard, so it can be cleaned with an ultrasonic cleaner. Avoid heat.

Please note that all metaphysical or healing properties listed are collected from various sources. This information is offered as a service and not meant to treat medical conditions. Fire Mountain Gems and Beads® does not guarantee the validity of any of these statements.

Charts and Guides [View All](#)

STONE CUTS TOP AND BOTTOM



Gemstone Size and Ruler Chart [View](#)

This printable PDF offers easy-to-compare visuals for understanding gemstone cuts and sizes.



Alexandrite - al-ig-ZAN-drite (or: a)

Alexandrite - al-ig-ZAN-drite

Stone Material Pronunciation Guide [View](#)

Stumped on how to pronounce a gemstone name? This casual guide with names of common gemstones can help.

Material Type	Actual Material
Microcrystalline	Quartz
African "Jade"	

Gemstone Material Types [View](#)

Use this chart to discover the actual materials used to create certain products that resemble natural gemstones.