

The Unique Jewel Born from a Star



CHARLES & COLVARD®
—Created—
M O I S S A N I T E

Born from a star,
a sparkling fusion of art and science,
Moissanite displays a fire and brilliance
unmatched by any other jewel.

Women the world over
are rewarding themselves for their achievements,
both personal and professional,
with a jewel as unique as they are –
Charles & Colvard created Moissanite.
After all, they know they've earned it.



CHARLES & COLVARD®
—Created—
M O I S S A N I T E

Designed to Dazzle

Whether your vision calls for a single, sophisticated round brilliant or a series of dazzling matched ovals, Charles & Colvard guarantees that, regardless of the size or shape, each and every one of your created moissanite jewels will be hand cut by a master technician to create maximum brilliance and to spark the ultimate fire.

Calibrated sizes available: 3 to 14mm.

Guaranteed.

All Charles & Colvard created Moissanite jewels are accompanied by Charles & Colvard's Certificate of Authenticity and a Limited Lifetime Warranty.



CERTIFICATE OF AUTHENTICITY

Charles & Colvard certifies that every Charles & Colvard created Moissanite jewel is an original Charles & Colvard product which has been manufactured in Charles & Colvard controlled facilities by highly-skilled specialists using the latest technology. Moissanite jewels are released for sale only after having met stringent quality control specifications.

THE CHARLES & COLVARD LIMITED LIFETIME WARRANTY FOR BRILLIANCE AND FIRE

Charles & Colvard, Ltd. offers consumers a limited lifetime warranty that Charles & Colvard created Moissanite jewel(s) will maintain their brilliance and fire for the lifetime of the owner.

In the unlikely event that the optical properties of brilliance and fire alter in a Charles & Colvard created Moissanite jewel(s), the jewelry, along with the original receipt, should be returned to the place of purchase, and the defective jewels will be replaced with Charles & Colvard created Moissanite jewel(s) of equivalent value.

This warranty does not include loss, theft, disappearance or the loss of optical properties of brilliance and fire due to incidental or intentional damage such as scraping, breakage or chipping. This warranty gives you specific legal rights, and you may have other rights which vary from State to State.

fashionable

ROUND BRILLIANT



CUSHION



HEART



MARQUISE



OCTAGON



OVAL



PEAR



PRINCESS



RADIANT



TRIANGLE



TRILLION



Distinctly Moissanite

The following will help you identify created moissanite from other near-colorless jewels.

Double refraction.

View moissanite with a magnifying loupe (10x) through its crown (top) or pavilion (side) facets and a doubling of the back facet junctions can be seen. Diamond, for example, is single refractive and does not show doubling.

Inclusions.

Needle-like inclusions are inherent to the process that creates moissanite crystals. Under magnification these inclusions can be seen located perpendicular to the table. Note: All moissanite jewels sold are eye clean.

Dispersion and refractive index.

The science responsible for the extraordinary fire and brilliance of created moissanite is dramatically shown below. Equal high-intensity lights shine over a moissanite, diamond and cubic zirconia (CZ). The uniquely superior fire and brilliance of moissanite (due to its high refractive index and dispersion) is illustrated by the wide color spectrum.

Testers.

Jewelers using special moissanite testers in conjunction with a thermal diamond tester can easily identify moissanite. The Tester Model 590 is shown below.

Your jeweler.

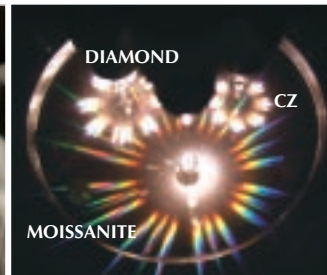
Fine jewelers all over the world, using the methods previously described, can easily recognize the distinctive visual and physical properties of Charles & Colvard created Moissanite.



Double Refraction




Inclusions



Dispersion & Refractive Index



Tester Model 590



*Splendor from the heavens...™
...becomes the rarest jewel on earth.*



An amazing gift from the stars.

Fifty thousand years ago, a meteorite containing a unique secret landed in the Arizona desert.

It wasn't until 1893 that scientist Dr. Henri Moissan – who later received the Nobel prize for chemistry – examined samples taken from the meteorite's crater and discovered particles of an intriguing new mineral, silicon carbide (later named "moissanite" in his honor).

Natural moissanite crystals large enough for use in jewelry are extremely rare – found in limited quantities or as small particles. However, almost 100 years after Dr. Moissan's amazing discovery, science developed a way to duplicate this gift from the stars.

Discovered by Charles & Colvard.

Early in the 1980's, a prominent U.S. scientist predicted that moissanite could have a place in the jewelry industry if the secrets of natural moissanite could be duplicated for growing large crystals. Soon after, a proprietary process was developed for producing large, gem-quality crystals – and when a master diamond cutter suggested faceting them to make highly durable and brilliant jewels, Charles & Colvard created Moissanite was born.

intriguing

In a category of its own.

DAZZLING – The visual characteristics of Charles & Colvard created Moissanite make it a unique jewelry category. High dispersion (0.104) and refractive index (2.65 - 2.69) inherently give moissanite more dazzling sparkle than any other jewel, while its precisely calibrated and carefully hand-cut facet patterns intensify fire and maximize brilliance.

DURABLE – A jewel’s hardness is determined by its scratch resistance, toughness by its resistance to breakage. Extremely resistant to scratching, abrasion, breaking or chipping – moissanite is durable and tough, and is second in hardness only to diamond.

HEAT RESISTANT – Moissanite has heat resistance properties superior to many other jewels. It can be cast in place in gold, making crafting unique jewelry easy, allowing designers to offer innovative, exact-fit creations.

High heat tolerance makes moissanite less likely to experience heat damage during jewelry repair because it survives extreme temperatures without altering color or composition.

EXCLUSIVE – Charles & Colvard, Ltd. is the sole manufacturer of created moissanite with proprietary patents¹ for the manufacturing process itself, as well as for its use as a jewel.

¹ U.S. patents issued in 1998 (#5,723,391 and #5,762,896) protect moissanite’s use in jewelry and the process for its creation.

Optical and Physical Properties

	REFRACTIVE INDEX (BRILLIANCE)	DISPERSION (FIRE)	LUSTER	MOHS HARDNESS	TOUGHNESS
MOISSANITE	2.65-2.69	0.104	20.4%	9 1/4	EXCELLENT
DIAMOND	2.42	0.044	17.2%	10	EXCELLENT*
COLORLESS SAPPHIRE	1.77	0.018	7.7%	9	EXCELLENT
CUBIC ZIRCONIA (CZ)	2.17	0.060	13.6%	8 1/2	GOOD

*Sources of specific information:
GIA Handbook of Gem
Identification, GEMS and
GEMOLOGY article “Synthetic
Moissanite: A New Diamond
Substitute” - Winter 1997 p. 260
Gems by Webster, Fifth Edition*

**But only GOOD in cleavage directions.*

Brilliance is the combination of the luster (reflections from the surface) and internal reflections, both of which increase with the size of the refractive index. Fire increases with the size of the dispersion.

For each gemstone material, the angles of the cut are adjusted to maximize brilliance and fire.

