



NOUVEAU

JEWELLERY

What are diamonds? And how are they formed?

Diamonds are pressurized carbon.

They are formed billions of years ago, approximately 150-200km. below the earth's surface.

The high temperature and pressure force the carbon into a unique structure that results in a diamond.

Diamonds can now also be grown in a laboratory.



Diamond facts

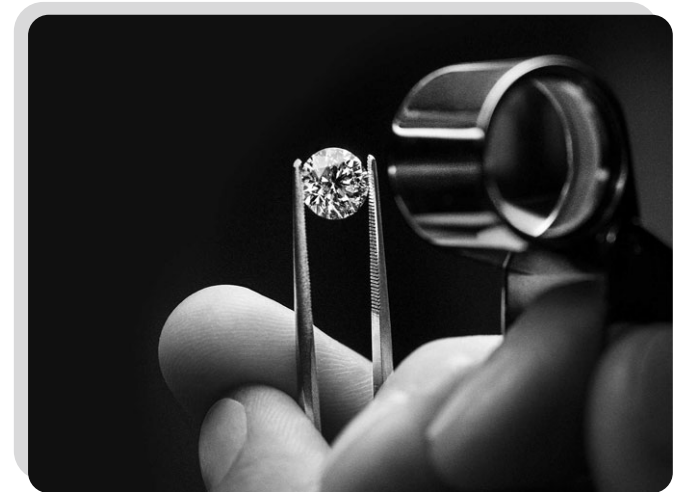
Diamonds are one of the hardest materials known to man and the hardest naturally found substance.

While they are extremely hard they are brittle too, so they can crack.

Only a diamond can scratch another diamond, so be careful while wearing multiple rings.

Diamonds are almost fully carbon, however they can contain impurities. These impurities can give diamond their colour.





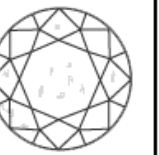
Diamond is the birth stone for the month of April.



Diamond grading

The most spoken about distinguishers of Diamonds are 4 Cs.
Every diamond is graded by these 4 key parameters.

Cut | Clarity | Colour | Carat

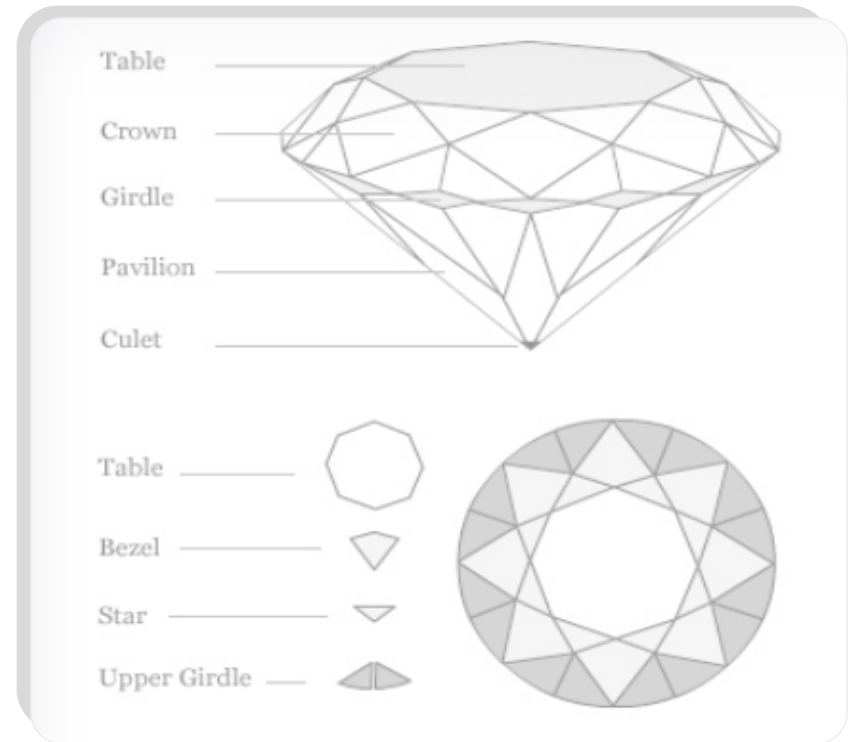
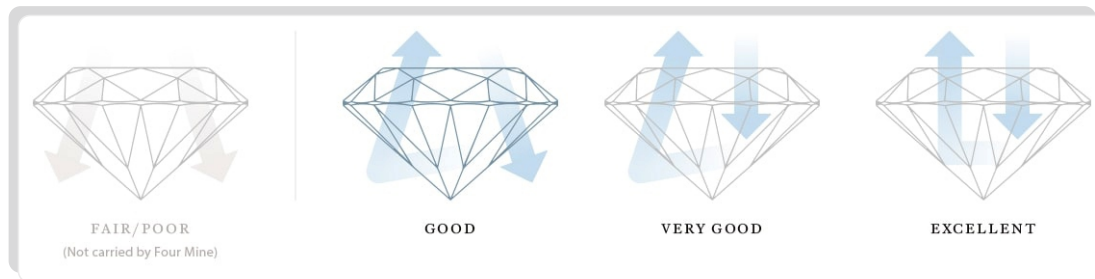
Clarity & Color chart, value diamonds described by viewing with naked eye only										
IF	Vvs1	Vvs2	Vs1	Vs2	SI1	SI2	SI3	I1	I2	I3
										
No flaws Perfect diamond (Rare & very very very expensive)	Nearly Perfect almost no visible flaws under 10x & none visible (Extremely expensive & rare)	Visible crystals under 10x magnification & possible to see if you know location (Very expensive, near rare)	Possible visible crystal inclusions to visible crystal inclusions to eye without magnification (Best buy value)	Visible natural crystal characteristic inclusions without magnification (Great value)						

Cut

*The cut of the diamond determines how the diamond looks.
The better the cut the better the brilliance of the diamond.*

The reason a diamond shines is how light enters and exits a diamond.

Diamonds come in different cut grades and shapes.



Clarity

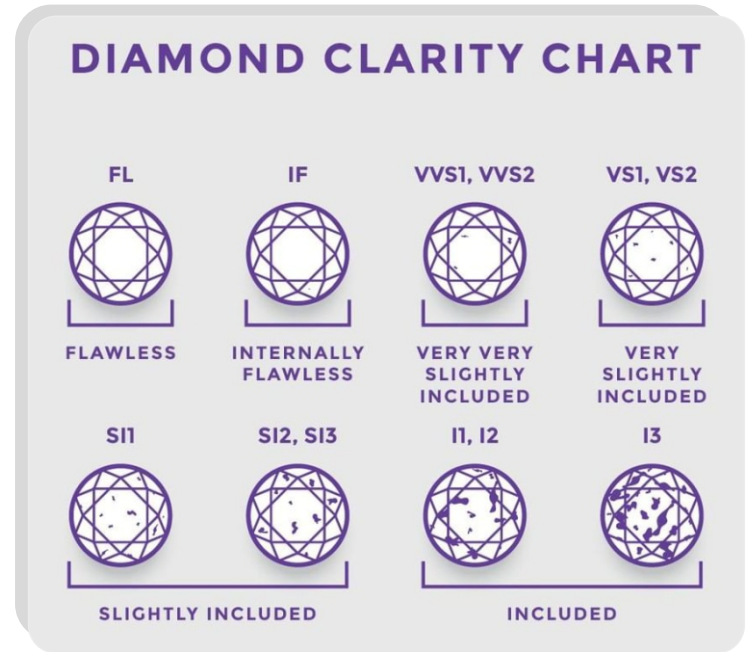
The clarity of the diamond basically means how clean the diamond is. It affects the rarity and therefore the expense. Every diamond has tiny natural markings in them.

GIA created a diamond grading scale to help the consumer understand what makes one diamond worth more than another.

The grading scale is based on the purity of the diamond. The more pure a diamond is the more expensive it is.

Flawless is the most rare and therefore the most expensive.

The ratings go as follows - FL (flawless) IF (internally Flawless), VVS (very very slight), VS (very slight) SI (Slight) and I1 to I7.

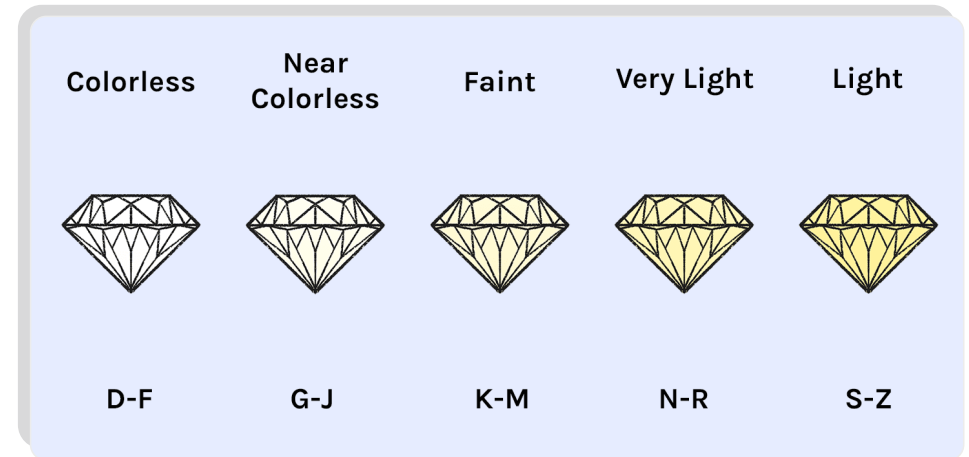


Colour

The colour of a diamond is the next important element of the 4 Cs. The diamond's colour ranges from an icy white colourless to a light yellow. D being the whitest and Z being the yellowest.

It's very difficult to tell the difference from one colour grade to another colour grade. That's why it's important to compare diamonds side by side.

Colourless is the most rare and therefore the most expensive.



Carat

The carat of the diamond is the wt. 1 carat equals 0.2 gms.

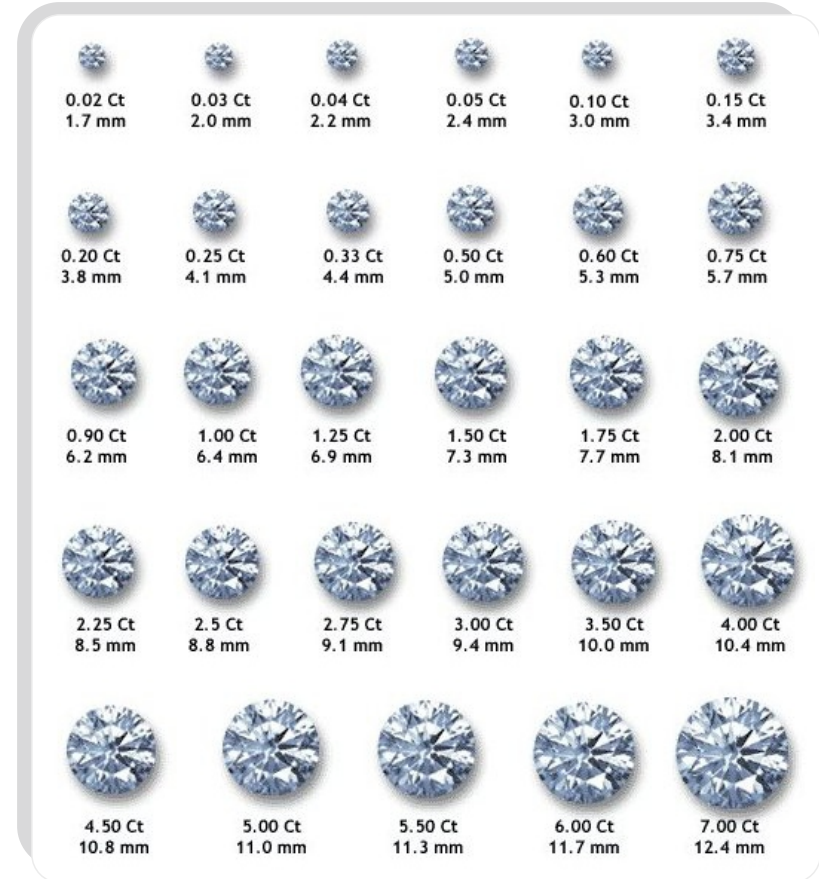
The carat of a diamond is also divided in 100 points.

The so when one says 50 points it means 0.5 cts.

The carat also determines the size of the diamond.

Many people want the largest diamond they can afford.

Although size is an important factor in determining the value of a diamond, The Cut, Carat, Colour and Clarity are equally important.



Why are the 4c's important-it helps you choose the right diamond for the customer

When someone is choosing a unique diamond, the best place to start is what is the most important C for a customer.

Some customers prefer quality others prefer size, some prefer shapes. So to start a customers unique diamond journey one should ask the customer what is the most important determinant to purchase the diamond.

The shapes we offer are Pear, Oval, Emerald, Round and Princess.



Historical timeline

1797: Scientists discovered that a diamond is a pure form of carbon, began efforts to manufacture diamonds.

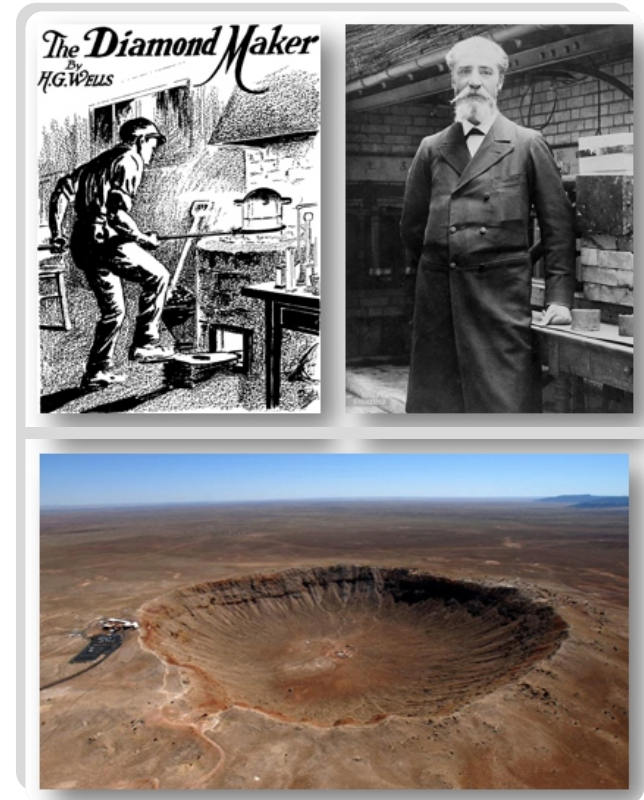
1911: Science fiction writer H. G. Wells described the concept of lab grown diamonds in “The Diamond Maker”

1879 and 1903: James Ballantyne and Ferdinand Frédéric Henri Moissan reported early attempts to manufacture diamonds: heating charcoal to temperatures above 3500°F, with iron, inside a crucible furnace followed by rapid cooling.

Moissan focused on the idea after the discovery of small diamonds in a meteorite crater in Arizona.

He believed he had discovered a new way to grow diamonds, but he had actually created a new material made of silicon carbide, named MOISSANITE after him.

He received the Nobel Prize in Chemistry in 1906.



Top left: H.G.Wells, The Diamond Maker. Top right: Henri Moissan.
Below: meteorite crater, Arizona

Historical timeline

1940's: Due to their characteristics (thermal conductivity, hardness, optical transparency, high electrical resistance) they were initially made only for industrial applications.

1954: G.E created the first batch of lab-grown industrial diamonds, although they only announced it in February 1955.

1950's to 1960's: The market saw the arrival moissanite and "simulants", which always failed to compete with the mined diamond in brilliance, color and fire.

1960: DeBeers' Industrial Distributors Ltd division develops methods for growing HPHT industrial diamonds .

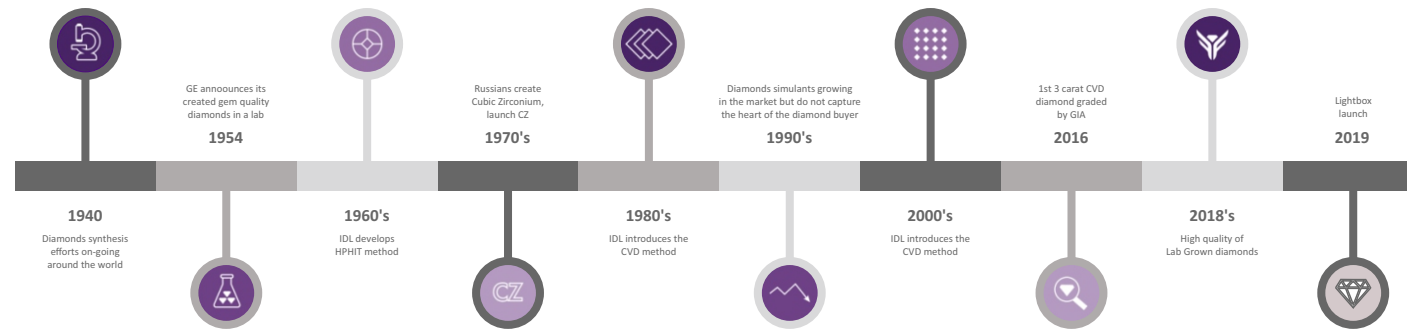
1970's: HTPPT gem quality lab-grown diamonds become widely available. GE grows them in the US. Soviets develop Cubic Zirconia while attempting to grow a diamond.

2014: Advancements in CVD technology produced high quality gems in terms of the 4 C's.

2016: GIA grades a top quality, 3 CT CVD stone, for the first time.

2018: The high quality of gems now being created leads the Institution and the FTC to abandon use of the term "synthetic" to describe lab grown diamonds.

2019: Launch of lightbox a De Beers invested company and adoption of Lab grown diamonds by larger players. Launch of Pandora.



GE Scientists, 1955

About Lab Grown diamonds

A lab-grown diamond is “grown” inside a controlled environment using cutting-edge technology replicating the natural diamond growing process. The result is a diamond that is chemically, physically and optically similar to natural diamonds.



Science: same composition and characteristics

A lab-created diamond is “grown” in a lab using cutting-edge technology that replicates the natural diamond growing process.



Characteristics	Lab Grown	Natural	Stimulants
Chemical composition	C	C	No
Crystalline Structure	Cubic	Cubic	No
Refractive Index	2.42	2.42	No
Dispersion	0.044	0.044	No
Hardness	10	10	No
Density	3.52	3.52	No



Lab created rough diamond and mined rough diamond

HPHT Process

The HPHT process replicates the conditions where diamonds grow in the depths of the earth, starting with a microscopic diamond seed (carbon).

The carbon seed is blasted with high temperature, pressure and gasses.

The carbon atoms gradually build onto the diamond seed thus creating a new gem in a period of six to ten weeks.

Chamber conditions cannot fluctuate, or the resulting diamond will be unusable for jewelry making.

At the end of the process, the new lab-grown diamond is cut and polished exactly as a mined gem.

In an HPHT diamond, the crystal structure is disorganized as growth happens in all directions. These are suitable for cutting small sizes.

The polished diamond will show visual features such as colour distribution, and graining patterns related to their cross-shaped, growth-sector structure and fluorescence caused by residues of BORON.

CVD Process

CVD is a very different technique where the diamond seeds are placed in a vacuum-sealed chamber while extreme pressure is applied to hydrocarbon gases, typically methane and hydrogen. The chamber is heated to an extremely high temperature resulting in the decomposition of the hydrogen to form pure carbon atoms (diamond).

The release of these carbon atoms drop in a mist and attach themselves to the original diamond seed gradually building into a new gem.

CVD advantages over HPHT

The CVD chamber has no SIZE restrictions hence it is possible to produce larger Lab Grown diamonds.

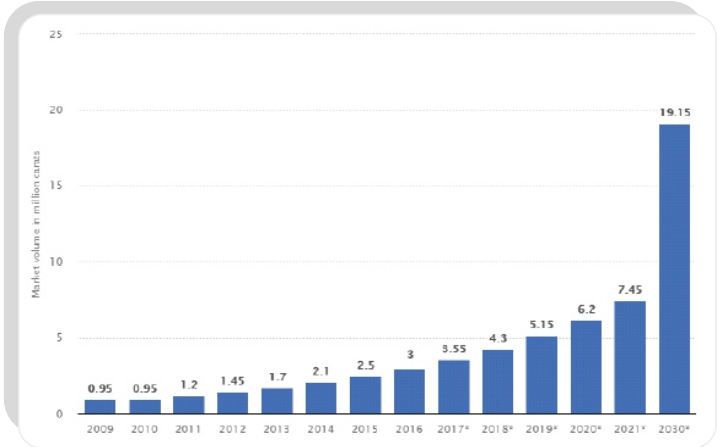
CVD rough has one directional growth, resulting in an organized crystal structure identical to a mined 2A diamond.

When testing with a diamond Pen Tester HPHT does not show up as a diamond, CVD does.

Market volume of Lab Grown diamonds worldwide from 2009 to 2030 (in million carats)

LAB GROWN THE NEW DISRUPTION

LAB-GROWN DIAMONDS are gaining an increasing share of the global diamond market each year and with that, the volume of lab-grown diamonds produced is growing. the market volume is expected to amount to about 19.2 million carats in 2030.



<https://www.statista.com/statistics/1179879/lab-grown-diamonds-and-mined-diamonds-price-comparison-by-brand-and-carats/>

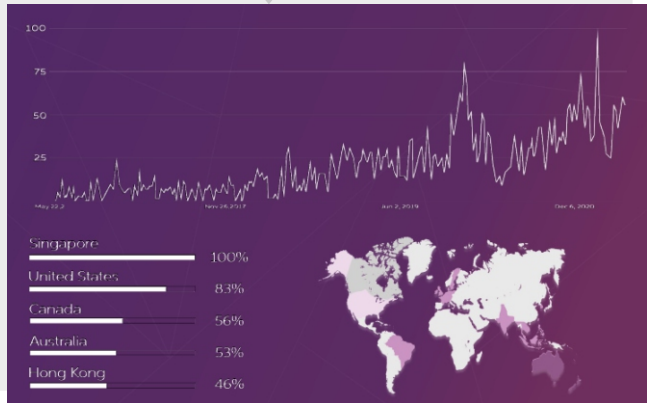
LAB GROWN DIAMONDS



80% of Millennials are highly Positive or Neutral

PHENOMENAL GROWTH IN INTEREST LEVELS (WORLDWIDE)

Google Trend Report
Worldwide
(May 2016-Dec 2020)



What is driving sales and growth?

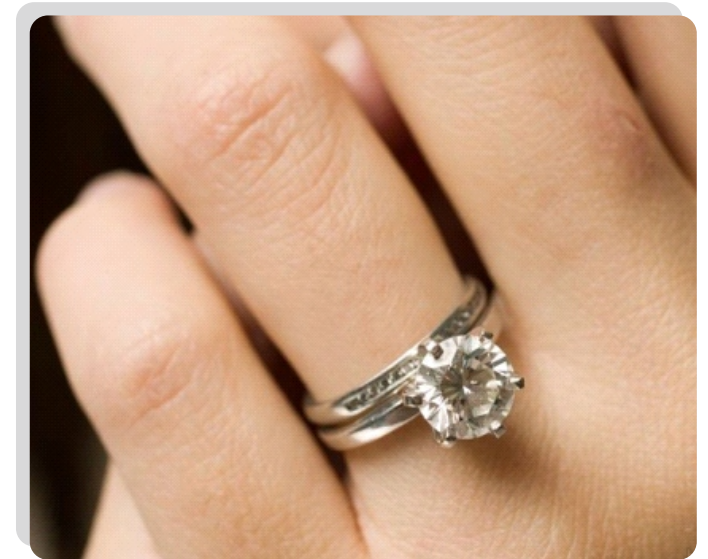
30% YOY growth.

Main reasons for the growth are:

- Usage in technology*
- Consumer awareness and attitude towards Lab grown diamonds:
From 9% in 2010 to 80% in 2020*
- 'LAB Grown Diamond' online searches have tripled in the last 5 years*

Main drivers are

- Value*
- Ability to buy a bigger/better diamond*
- Secure supply-chain (knowledge of origin)*
- Environmentally safe compared to Mined*
- Media and digital*
- Acceptance by Millennials*



The media

*Who's wearing,
who's talking about it*

Media speak

BLOOMBERG OPINION MILLENNIALS SAY LAB DIAMONDS SHINE JUST LIKE THE REAL THING

Pandora AS, which makes more pieces of jewellery than any other company in the world, said this week that it would no longer use mined diamonds and instead turn to lab-grown stones. Known for affordable charms beloved by young shoppers from China to the U.S., Pandora is the ideal candidate to spearhead this type of sparkler.

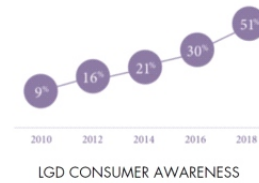
Lab-grown diamonds are certainly cheaper, which has appealed to consumers during the pandemic. In the U.S., they accounted for 3.1% of jewellery sales by value in the final quarter of 2020.

MARKET RESEARCH

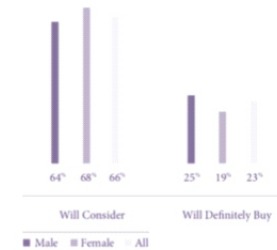
In a choice between a 1.9ct lab grown vs a 1.4ct mined diamond for the same price, 63% of consumers chose the lab-grown diamond (all other variables being equal).



It is the bigger/better for less message that is appearing to be most compelling for US consumers.



INTEREST IN LGD ENGAGEMENT RING



Even as overall awareness of lab grown diamonds is growing among fine jewellery consumers of all ages, millennial jewellery buyers are more tuned into lab grown than other consumers.

AWARENESS OF LGD AMONG JEWELLERY BUYERS



Once consumers learned about the lab-grown diamonds story, the reaction among millennials was 84% positive

*Source: MVI Marketing Consumer Research Study Fall 2011

VOGUE

VOGUE AUSTRALIA, MARCH 2019

How lab diamonds are shaking up the world of fine jewellery

“When it comes to diamonds, rareness and extravagant price tags have always been welcome touchstones, but as technology steals a march on nature, is the ultimate gemstone undergoing a make-under for the modern day?”

Media speak



One of the most vocal advocates for lab-grown diamonds, actress Penelope Cruz, she debuted at the 71st Cannes Film Festival in May 2018 with jewellery in Lab Grown diamonds.

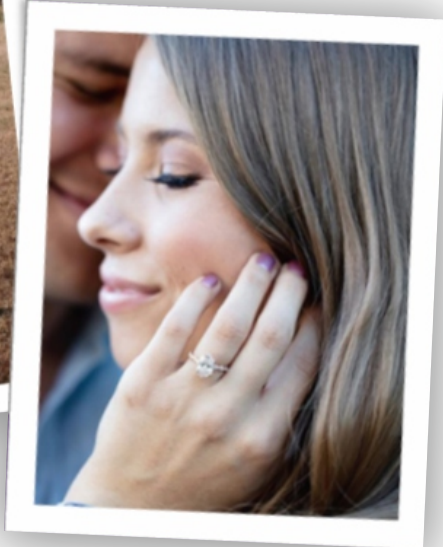
Lady Gaga attended the London premiere of A Star is Born in September 2018. Each Constellation Pearl Earring is made with three freshwater pearls and nine brilliant-cut lab-grown diamonds.



In November 2018, Riverdale actress Camila Mendes attended the People's Choice Awards wearing a 5-carat lab-gown pink diamond set on a 14-carat gold band

Media speak

Bindi Erwin's Oval Halo, Rose Gold, lab-grown engagement ring, posted to Instagram by the newly engaged couple July 2019



The Duchess of Sussex, Meghan Markle was recently seen sporting a pair of diamond earrings with an interesting twist. Markle continues her eco-friendly fashion journey by donning Lab grown diamonds from a London-based brand which creates ethical jewellery.

Media speak

NOW A FREQUENT GEM ON THE RED CARPET



VICTORIA'S SECRET FANTASY BRA 2018

The bra featured 2,100 Lab grown diamonds, weighing a total of 71.05 carats including a pear-shape 2.03 ct. center stone. The design took four craftsmen 930 hours to make, according to a statement from Atelier Swarovski.

The bra is valued at \$1 million,.

Merchandising styles

BRIDAL



STUDS



BANDS



PENDANTS



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