



BUYING GUIDE TO LAB GROWN VS NATURAL DIAMONDS

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A MESSAGE FROM OUR AUTHORS



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Clear Answers to the Top Questions on Lab Grown vs Natural Diamonds

- ✓ Is a lab grown diamond a "real" diamond?
- ✓ Can you buy a quality lab grown diamond ring for less than a natural diamond?
- ✓ What are the tradeoffs between lab grown and natural diamonds?
- ✓ Is a lab grown diamond better for the environment?

This **Simple & Savvy Guide to Buying Lab Grown vs Natural Diamonds** from BriteCo will help you answer those questions and more. As lab grown diamonds become more popular among jewelry buyers, you'll want to evaluate and make a more informed decision for yourself.

10-20%

According to industry estimates, lab grown diamonds now make up anywhere from 10 to 20 percent of diamond sales.

READING THIS GUIDE WILL HELP YOU:

- ✔ Gain a better understanding of what defines a lab grown diamond
- ✔ Learn the key differences between lab grown and natural diamonds
- ✔ Get tips on how and where to buy a lab grown diamond

TERMINOLOGY

While natural diamonds are often referred to as "earth-mined diamonds" to distinguish them from lab grown diamonds, we use the more common term, natural diamonds, throughout this guide.

CALLOUTS IN THIS BOOK

Throughout the guide you will see symbols that indicate various types of useful information, including,



SAVVY TIPS

This is practical advice that can save you time and effort in exploring the purchase of a lab grown diamond.



FOOD FOR THOUGHT

This content speaks to broader issues involving lab grown diamonds that you may want to delve into further.



TECHNICAL TALK

This lets you know that the information discussed involves technical terminology.



BE CAUTIOUS

This information helps to alert you about issues that you need to be aware of when exploring the purchase of lab grown diamonds.

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Care and Maintenance of Lab Grown Diamonds



PART 1

Getting to Know Lab Grown Diamonds

LAB GROWN DIAMONDS DEFINED

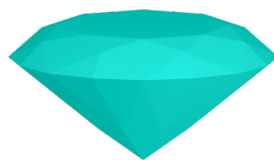


OK, what is a lab grown diamond anyway?

Lab Grown diamonds are diamonds that are grown in laboratories across the world.

They are also known by a bunch of different terms

- ✓ Created diamonds
- ✓ Synthetic diamonds
- ✓ Artificial diamonds
- ✓ Cultivated diamonds



LAB GROWN DIAMONDS

Lab Grown diamonds are man made diamonds that possess a structure which mirrors natural diamonds. They are made up of carbon, and exhibit the same chemical, optical, and physical characteristics of a natural diamond crystal produced by geological processes over millions of years.

To the human eye, there are no discernable differences between lab grown diamonds and natural diamonds.

IS IT A DIAMOND?

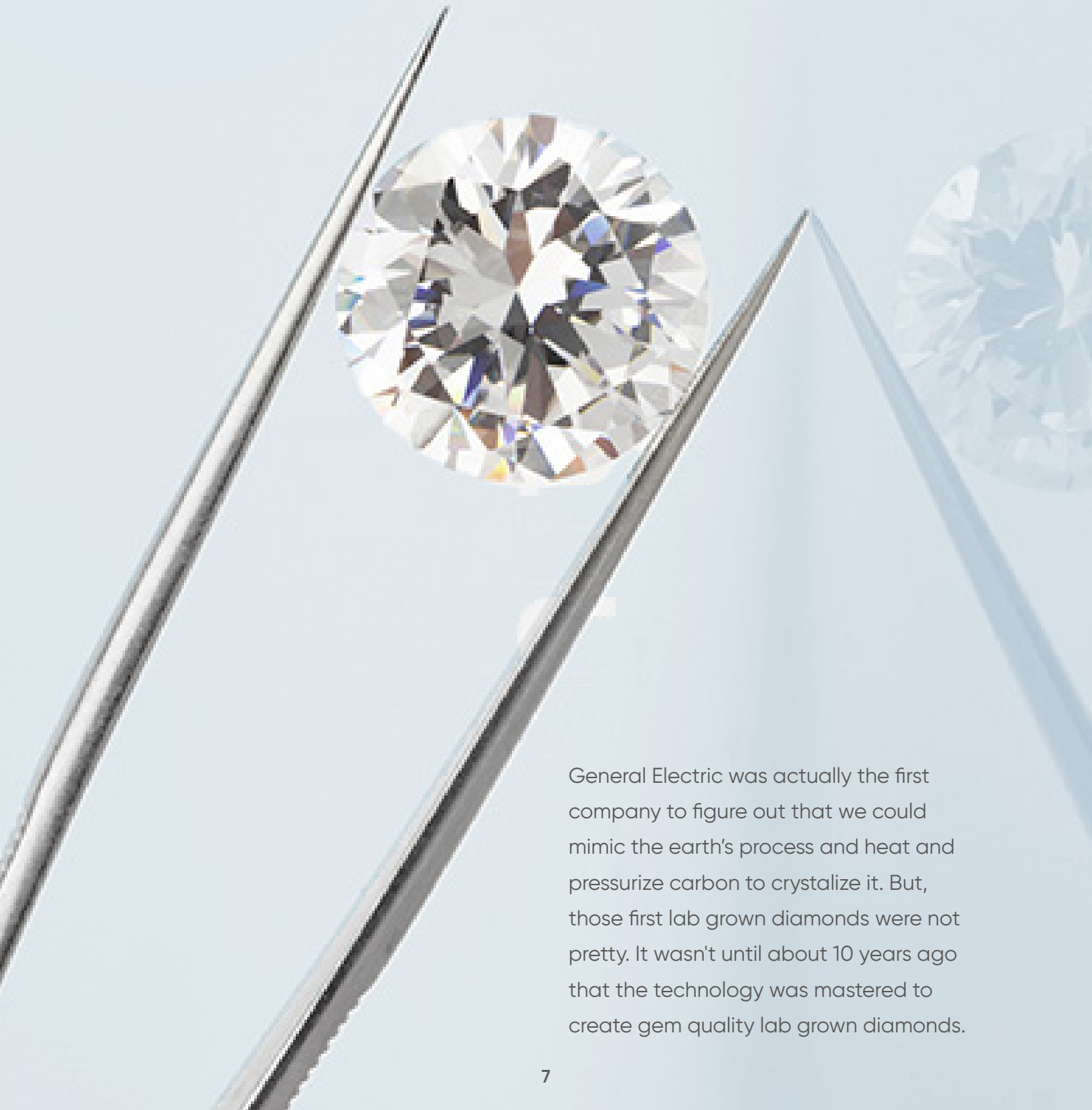
LAB GROWN



NATURAL



Lab Grown diamonds have
been around since the 1950s.



General Electric was actually the first company to figure out that we could mimic the earth's process and heat and pressurize carbon to crystalize it. But, those first lab grown diamonds were not pretty. It wasn't until about 10 years ago that the technology was mastered to create gem quality lab grown diamonds.

Laboratory conditions for growing a diamond result in the same natural growth process of a single crystal, 100% carbon structure that is created under the earth.

THE RESULT
is a stone that is
100% DIAMOND,
according to the
**INTERNATIONAL GROWN
DIAMOND ASSOCIATION**



International
Grown Diamond
Association

Lab Grown diamonds are not simulated diamonds

A lab grown diamond is an actual diamond.

Simulated diamonds, also known as diamond simulants, are not diamonds!

They include

- ✓ Cubic Zirconia (CZ)
- ✓ Moissanite
- ✓ Yttrium aluminum garnet (YAG)



**SIMULATED DIAMONDS ARE
NOT REAL DIAMONDS**

These are not real diamonds but are diamond look-alikes. Unfortunately the two terms – **simulant** and **synthetic** – are often used interchangeably making it confusing for consumers.



Lab Grown diamonds are not simulated diamonds

That's why we prefer the label "lab grown" over synthetic for describing man-made diamonds.

This follows FTC guidelines set in 2018 and industry leaders like the Gemological Institute of America (GIA) that have removed the word synthetic from its certification reports and refers only to lab grown diamonds.

The Federal Trade Commission has ruled it a deceptive practice to refer to lab grown diamonds as synthetic diamonds. However, the misuse of the term persists, particularly online, so as an informed buyer you need to beware.



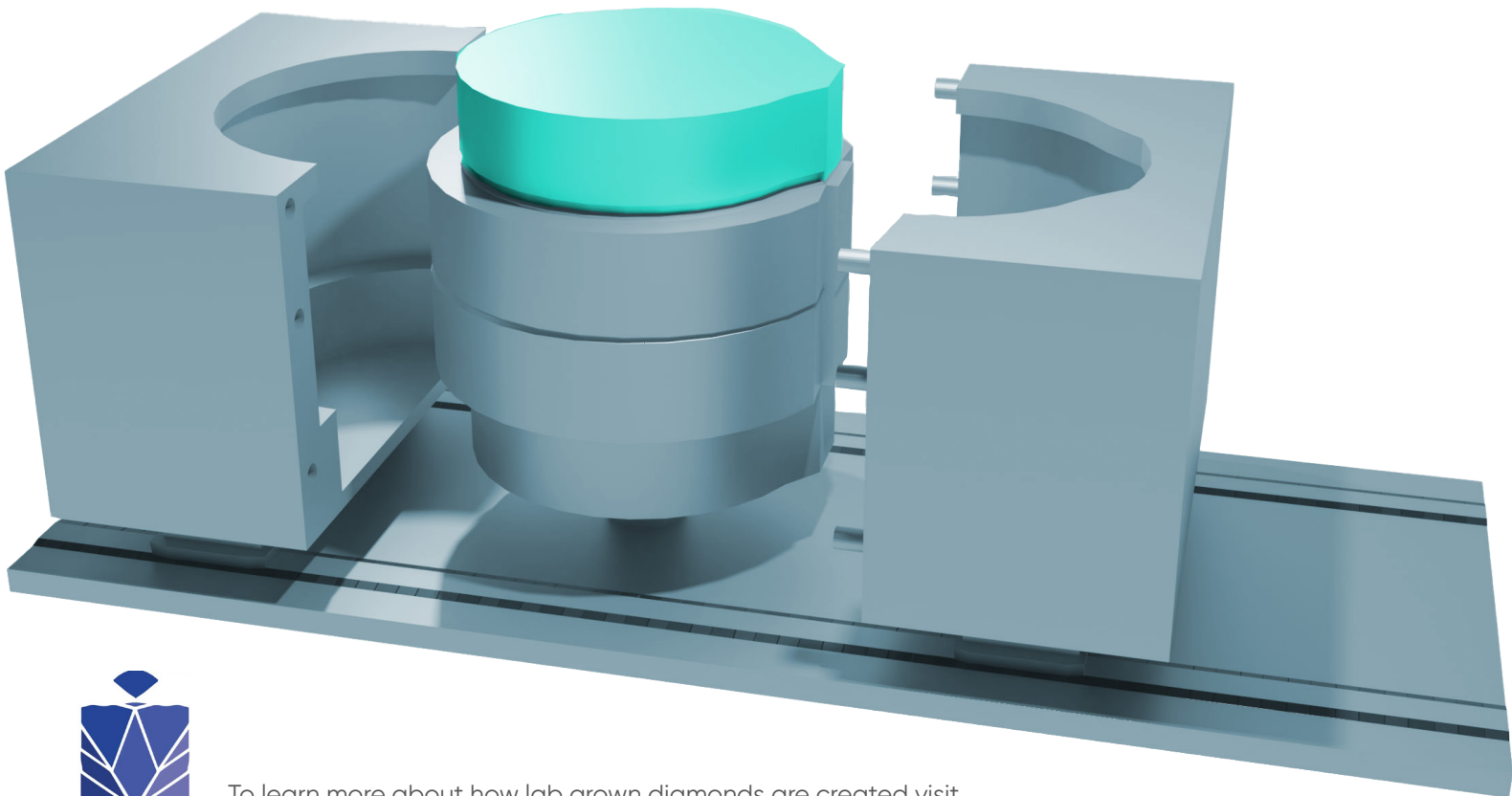


How lab grown diamonds are made

There are two main ways to produce a man-made diamond.

One uses a high-pressure, high-temperature diamond or HPHT, diamond growth process which replicates the conditions under which natural diamonds occur.

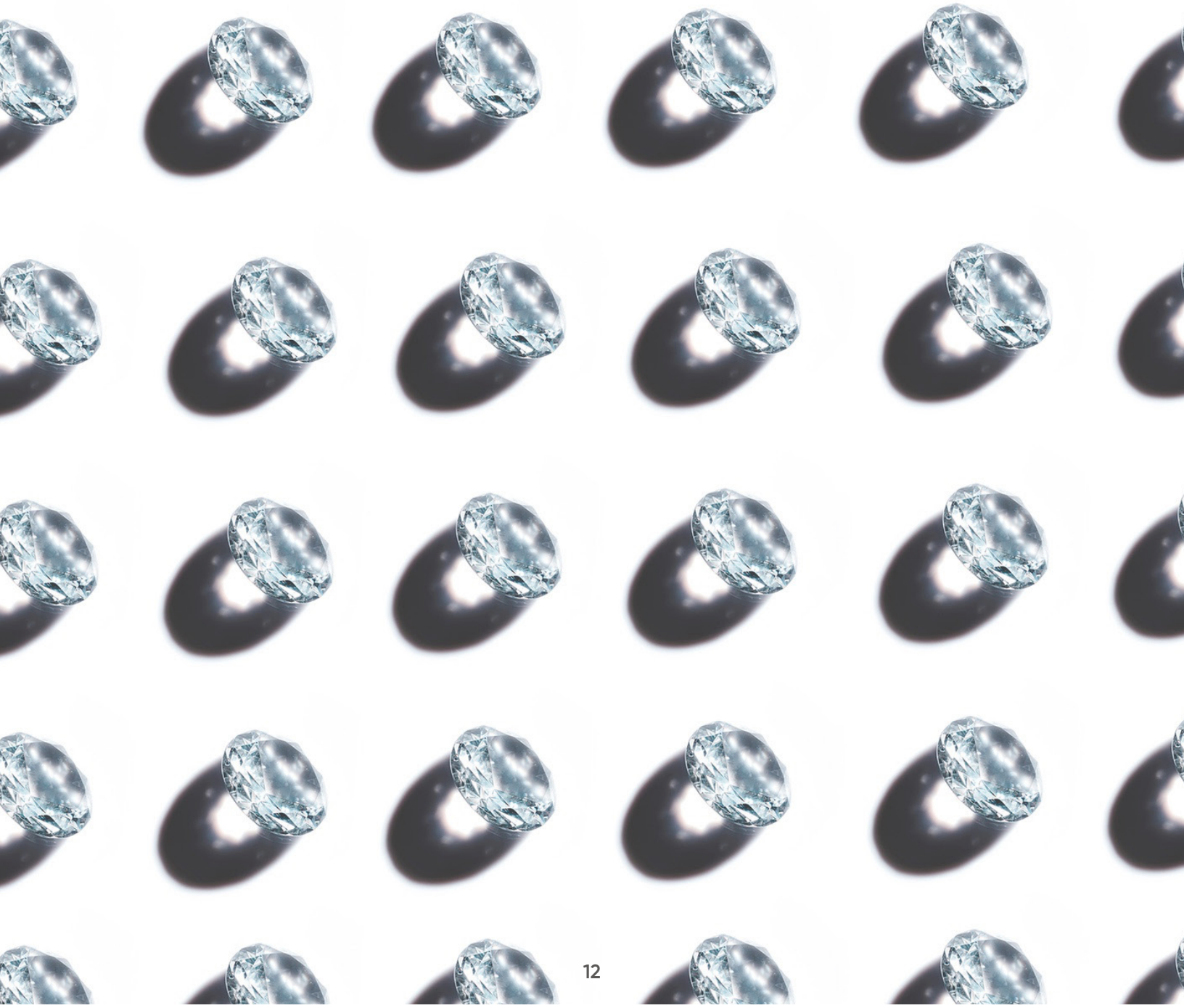
There is also a chemical vapor deposition or CVD method that starts with a diamond seed that is placed in a vacuum chamber that is flooded with a mix of methane gasses. These gasses contain many elements including carbon and heavy carbon molecules that attach to the seed and crystallize to grow into a diamond.



PART 2

Understanding Differences

BETWEEN LAB GROWN AND NATURAL DIAMONDS



Lab Grown diamonds are physically, chemically, and optically diamonds. There are some very slight differences, but overall the biggest difference is their origin.

NATURAL
diamonds are
two to three
billion years old

They were formed more than one hundred miles below the earth's surface with extreme heat and under immense pressure.

LAB GROWN
diamonds are grown
in laboratories and
TAKE ONLY A MATTER OF WEEKS

Are lab grown diamonds equal in quality to natural diamonds?

The easy answer is yes, when you are comparing stones with like colors and clarities. In the same way a rose that's grown in a greenhouse compared to one that's grown in a garden, both are roses. There are some differences between lab grown and natural diamonds in clarity, which are the internal and external characteristics of a diamond.

For instance there are inclusions that only the earth can give a diamond and there are those that only a machine can give. Diamonds need extreme heat and extreme pressure to grow. So with the evolution of our planet earth being so volatile and varied we get a larger range of color and clarity combinations in earth mined diamonds.



Lab grown diamonds are grown in a controlled environment so the yield trends towards higher colors and clarities.



However we still see a range here. But that doesn't mean that these laboratories are whipping out colorless, flawless diamonds all the time, they still allow the machines to crystalize the carbon without an exact knowledge of what the final outcome of color and clarity will be.

Are lab grown diamonds less expensive?

Yes, not so long ago we saw that lab grown diamonds were 30 to 40 percent less expensive than their natural counterparts when comparing a natural diamond of like size, color, and clarity.



More recently we've seen prices for lab grown diamonds come down even further to 40 to 50 percent less and even greater reductions as stones get larger, especially over 2 carats.

You can reasonably expect that the value of lab grown diamonds will decrease over time. Anything that humans make can typically be better and more efficiently produced. Think about the costs for a plasma TV. When first introduced, they were priced in the thousands of dollars. Now you can go to a local store and buy one for a few hundred dollars.

Lab Grown diamonds are typically available in retail jewelry stores today as well as online.



Consider how big and costly the very first computers were. Today, we all walk around with a minicomputer in our hands. Lab Grown diamonds are great because they get you the size and look you want for a fraction of the price, but you can expect the value to decrease over the lifetime of your piece.

Are lab grown diamonds more environmentally friendly?

THIS DEPENDS ON WHO YOU ASK.

On one hand, lab grown diamond producing companies tell us that digging giant holes in the ground and using energy for all of the mining machines and mining towns is harmful to the environment. And creating diamonds in the laboratory is much more sustainable and environmentally friendly.

In contrast, the natural or natural diamond companies contend that lab grown diamonds require an immense amount of energy to create diamonds, requiring a huge carbon footprint that contributes to global warming.



ONE THING TO NOTE:

in 2018 the FTC adjusted
their guidelines removing

WORDS LIKE

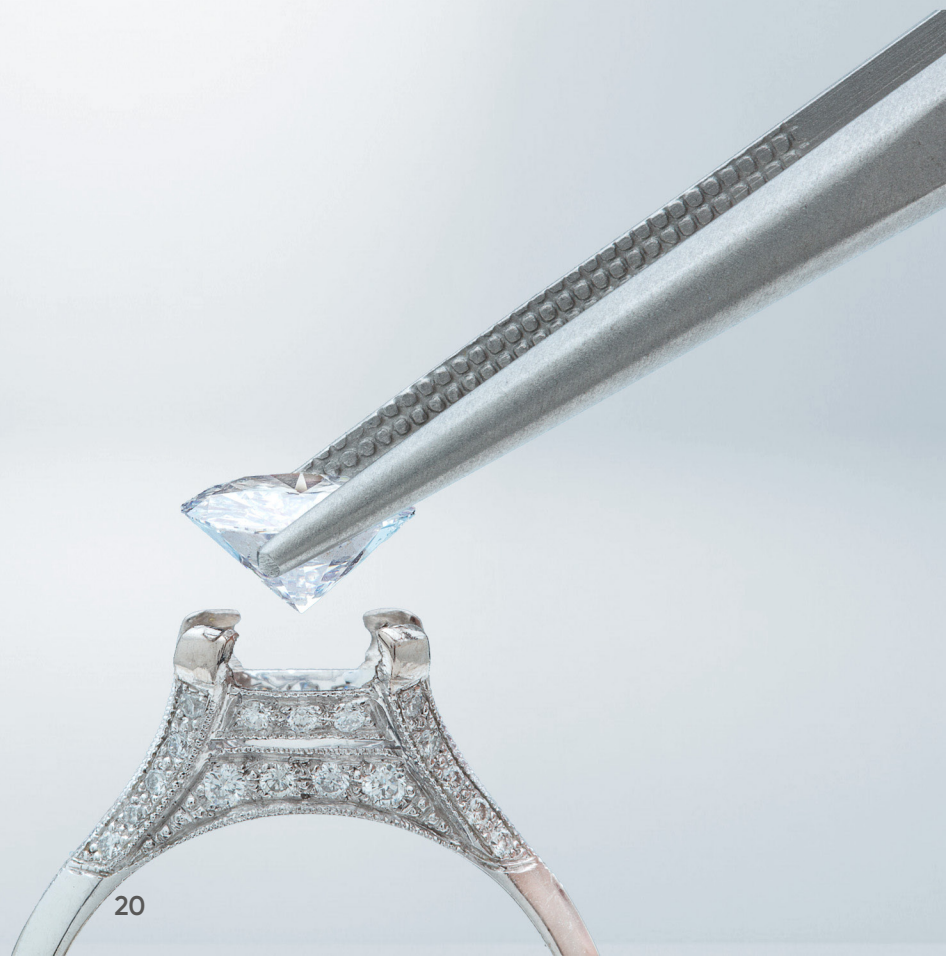
"ENVIRONMENTALLY AND ECO-FRIENDLY"

from any description or promotion of

LAB GROWN DIAMONDS

We feel the question of which diamond is more “sustainable” has not been fully answered yet.

And until we have a non-biased party setting standards based on assessing which one is better for the environment, individuals will have to make up their own mind when purchasing.





Differences in lab grown vs natural diamonds worth considering

Even though you may not visually tell the difference between a lab grown and natural diamond, there may be differences you want to consider.



Natural diamonds may have more prestige for some people



Technically speaking, there's no difference between lab grown diamonds and natural diamonds that have formed over billions of years. They're made of the same carbon atoms, and look identical to the naked eye. Natural diamonds are often perceived as having more prestige and value because they're rare, and the way they're formed means that there's only a limited amount of them. To own a natural diamond is to own a piece of the earth's history. An engagement ring, for example, is supposed to represent something long lasting; a special and unique love between two people.

PART 3

What You Need to Know
WHEN BUYING A LAB-GROWN DIAMOND





You can find lab grown diamonds online and in a growing number of retail jewelry stores throughout the US. Your best bet would be to find a local jewelry store that sells both lab grown and natural diamonds. That way you can see for yourself in a side by side comparison and decide the diamond that is best for you.

When purchasing a lab grown diamond, always be sure to ask for an accurate disclosure of how the diamond was sourced and created.



Whether you are purchasing a natural or lab grown diamond, you should know what you are buying. True lab grown diamonds come with a certificate from a reputable gem grading laboratory.





Buying lab grown diamonds through your local jeweler

Do your research by finding a local jeweler that sells both. Be cautious if you go to a company that sells only one and not the other since they can be biased in the information they provide you. Jewelers should be able to give you in-person education and show samples that help you choose what's best for you. Everyone has a different reason for wanting a natural or a lab grown diamond.

The choice is completely up to you!

“

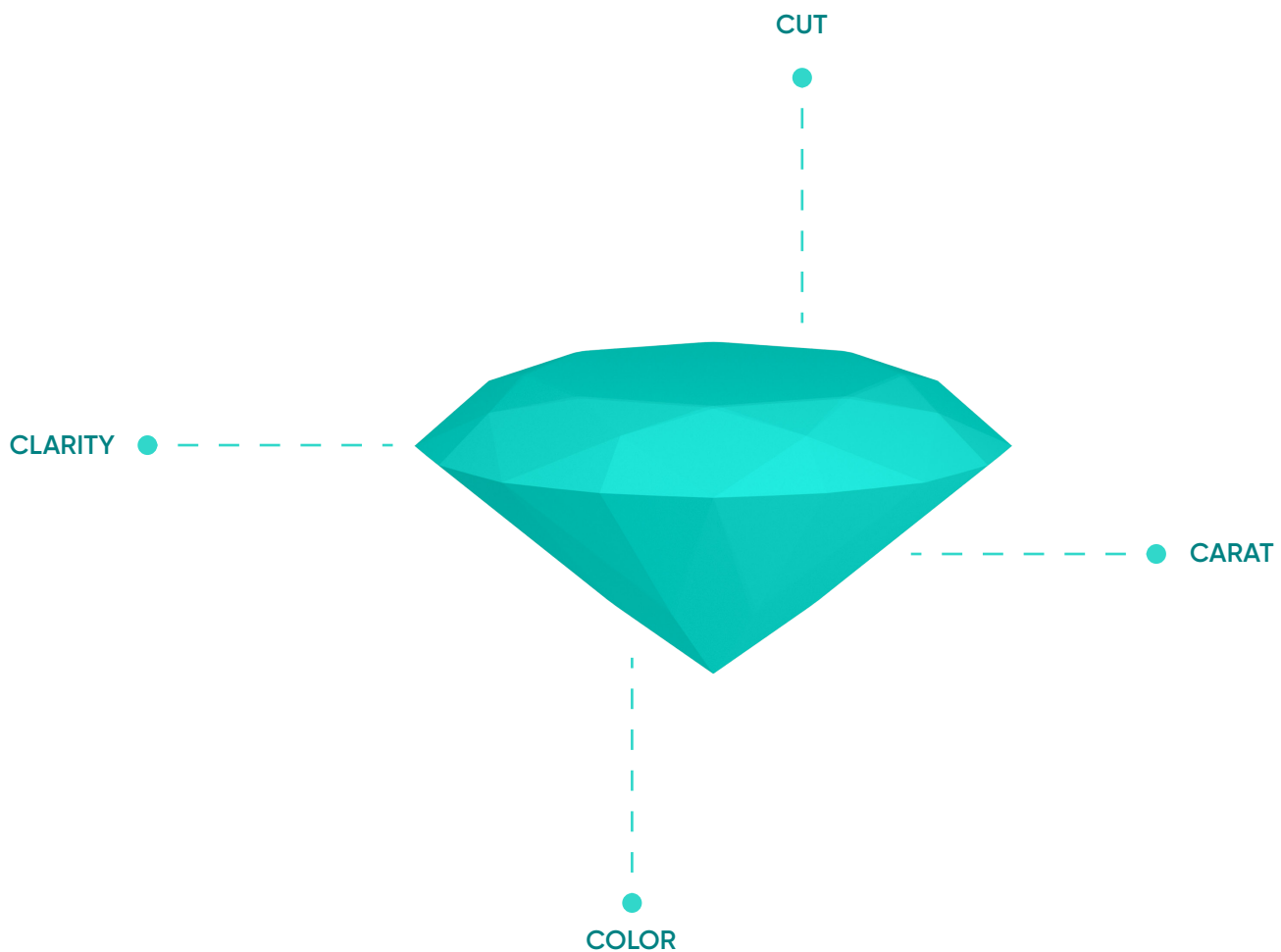
Your local jeweler should be able to show you samples of both natural and lab grown diamonds

”



Similar to buying an earth-minded diamond you'll want to familiarize yourself with the 4-Cs of diamond value. Carat weight, Clarity, Color, and Cut. You can learn about them online by visiting any number of sites such as

<https://www.gemsociety.org/article/grading-lab-grown-diamonds-four-cs/>





What is the best lab grown diamond grade?

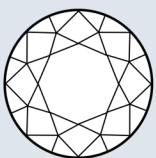
CLARITY GRADING

A lab grown diamond has the same grading system for clarity and color as a natural diamond.

- ✓ A lab grown diamond with no inclusions visible even under 10X magnification would earn the highest grade: "F" for Flawless
- ✓ The next highest grade would be "IF" for Internally Flawless
- ✓ Next would be "VVS" for Very, Very Slightly Included
- ✓ Then "VS" Very Slightly Included. Most lab grown diamonds receive a VS clarity grade
- ✓ Finally there is "I" for Included which means inclusions obvious under 10X magnification and possibly visible to the naked eye
- ✓ SI" Slightly Included

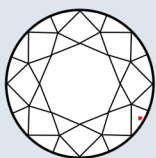
DIAMOND CLARITY CHART

Diamond clarity refers to the absence of naturally occurring inclusions within the stone or blemishes on the surface. The grading of a diamond's clarity depends on the size, colour and location of any inclusion or blemish, and is assessed by 10 x magnification.



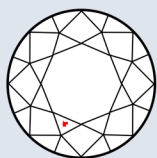
FL

FL diamonds are Flawless



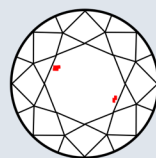
IF

IF diamonds are Internally Flawless



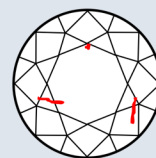
VVS1-VVS2

VVS diamonds (1 and 2) are Very,Very Slightly Included



VS1-VS2

VS diamonds (1 and 2) are Very Slightly Included



SI1-SI2

SI diamonds (1 and 2) are Slightly Included



I1-I3

I diamonds (1, 2 and 3) are Imperfect



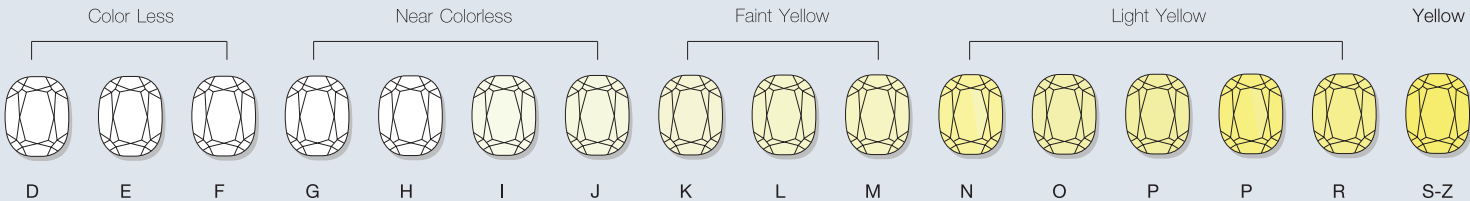
What is the best lab grown diamond grade?

COLOR GRADING

According to the Gemological Institute of America (GIA), diamonds are valued by how closely they approach colorlessness – the less color, the higher their value. The exceptions to this standard are fancy color diamonds, such as pinks and blues, which lie outside this color range. Most diamonds found in jewelry stores are rated from colorless to near-colorless, with slight hints of yellow or brown.

- ✓ Diamonds rated with D through F are categorized as colorless.
- ✓ Diamonds rated with G through J are categorized as near colorless.
- ✓ Diamonds rated with K through M are categorized as faint yellow.
- ✓ Diamonds rated with N through R are categorized as light yellow.
- ✓ Diamonds rated with S through Z are categorized as yellow.

DIAMOND-COLOR-CHART





Buying lab grown diamonds online

Buying a lab grown diamond online is very similar to the steps you would take to buy a natural diamond online. You'll want to carefully review the diamond's properties before you buy, including detailed information about the diamond's cut, color, clarity, and measurements.

You'll also want to look at photos and videos of the lab grown diamond to see how it looks from various angles and how it interacts with light.



DON'T BUY

an online lab grown
diamond without getting
a grading report from
AN INDUSTRY CERTIFICATION
ORGANIZATION SUCH AS

the Gemological Institute of America (GIA), the Gem Certification and Assurance Lab (GCAL), and the International Gemological Institute (IGI).

For Those Looking for a Diamond Engagement Ring

Briteco offers a free engagement ring calculator report, that you can find at <https://brite.co/personal-engagement-ring-calculator/> A section of the free report tells you how much larger a lab grown diamond would be compared to a natural diamond for the same price range.

Your Personal Engagement Ring Guide

Style	Metal		
	Carats	Color	Clarity
Pave			
		White Gold	
Best Overall Value	1.00 - 1.25	G - H	S11 - S12
Bigger Size	1.75 - 2.00	I - J	I1 - I2
Better Color & Clarity	0.70 - 0.80	D - F	VVS2 - VS1
Lab Grown	2.00 - 2.50	G - H	S11 - S12

How to Read Your Personal Engagement Ring Calculator Report

Best Overall Value
Best Overall Value of your diamond engagement ring reflects a balance among diamond (carat weight), as well as the color and clarity of the diamond for the price range where you can get the best quality for the cost based on your selection of metal mounting.

Bigger Size Diamond
This shows you how much you would have to sacrifice in the diamond's color and clarity of your engagement ring to get a larger stone for the price range you have chosen (see Color and Clarity description below). Note that increasing the size of the diamond will reduce color and clarity characteristics to stay within the price range you specified in the calculator form.

Better Color & Clarity
This price range shows you how you can increase the color and clarity of your diamond that increasing color and clarity likely will reduce the size of your diamond to keep in the calculator form.

Color - The next most important diamond variable for influencing price is a stone's color (very light). Choosing a truly colorless diamond (D), will increase the price. For H diamonds, there are discounts but, once you reach very light colored diamonds (I-M), the discounts disappear.

Clarity - Clarity refers to imperfections in a diamond, and is a subjective grading of the appearance of these inclusions under 10x magnification. This ranges from flawless (FL) diamonds that are VS2 or SI1 do not appear to the naked eye to have inclusions.

To understand and see the differences in Color and Clarity, we recommend visiting your local jewelry store.

Lab-Grown Diamonds
Lab-grown vs natural diamond engagement ring spending. This row shows how much more you would have to spend if you choose a lab-grown diamond in your price range compared to a natural diamond. Lab-grown diamonds in a laboratory setting are typically 30% less expensive than natural or earth-mined diamonds.

Mounting Metals
This shows your cost for the type of mounting metal you have chosen. According to BriteCo data, the most popular mounting metal by far (58%) is white gold, followed by yellow gold (29%), platinum (14.5%) and rose gold (6%).

Diamond STYLE
Solitaire, Halo and Side Stones were the most popular style engagement rings in 2021, with custom styles becoming more popular. Your style preference will have a major impact on how much you spend so it's worth taking time to try out the different styles at your local jewelry store in person.

Diamond SHAPE
Round diamond shape is by far the most popular, chosen by more than half of purchasers, according to Briteco data. That style is followed by Oval at more than 10%, and Princess at nearly 9%.

Diamond Size Pricing
You will have to pay more if you decide to increase the size of your diamond without sacrificing the quality of color and clarity. Keep in mind that diamond prices are exponential rather than linear, so as the carat weight increases, the price increases at a higher rate. For example, if you're comparing a 1.0 carat diamond to a 2.0 carat diamond, the larger diamond doesn't cost twice as much, but rather 3.4 times as much. If you compare a 0.5 carat diamond to a 1.0 carat diamond, the smaller stone doesn't cost half as much, it only costs a quarter as much as the larger stone.

Buying & Protecting Your Ring
The loss of your wedding ring can have an emotional and financial impact on you and your spouse. Obtaining coverage on your rings provides peace of mind and financial protection. Get a quote in less than 60 seconds with BriteCo and choose a policy that fits in with your coverage needs and budget.

PART 4

Care and Maintenance
OF LAB GROWN DIAMONDS





Storing, cleaning, and maintaining your diamond

Lab Grown diamonds are actual diamonds and as such need the same care and maintenance as natural diamonds.

Maintaining your diamond jewelry

RINGS

Make sure your diamond ring is sized appropriately. That means it shouldn't slip off or cut off circulation. Your ring size may change over time, so visit your jeweler if you need it adjusted. Check frequently for loose stones, missing stones, bent or broken prongs, thin shanks, and worn prong tips.





Maintaining your diamond jewelry

NECKLACES

Be on the lookout for stressed or broken links in your diamond necklace. Check the clasp and clasp spring for damage or wear.

Maintaining your diamond jewelry

BRACELETS

There should be no more than a thumb's worth of room between your wrist and your bracelet. Keep an eye out for stressed or broken links. Monitor the clasp and clasp spring for damage or wear.



Maintaining your diamond jewelry

EARRINGS

Frequently check diamond earring backs for proper tension. Check earring posts for any bending, breaking, or wear. Inspect your earrings often for loose stones, missing stones, bent or broken prongs, and worn prong tips.





Maintaining your diamond jewelry

PENDANTS

Check for wear or breakage on the bail, which is the component used to attach the pendant to a necklace or chain. Watch for loose stones, missing stones, bent or broken prongs, and worn prong tips.



Bring your jewelry to your jeweler a few times a year to be inspected and professionally cleaned.





Cleaning your jewelry with dish soap

- ✔ If working near a sink, plug the drain.
- ✔ Put a drop or two of dish soap in a small bowl, then fill with warm water.
- ✔ Put your jewelry in the mixture and swish it around.
- ✔ We recommend only one piece at a time.
- ✔ Use a soft bristled brush to gently remove dirt and grime.
- ✔ Rinse off in cool water and dry completely with a soft cloth.



Do not use this method if your jewelry contains amber, carnelian, ivory, malachite, pearls, or turquoise. Instead, wipe with a wet rag and dry immediately with a soft cloth.





Cleaning your jewelry with jewelry cleaner

If you are using a jewelry cleaner, make sure it can be used safely with the precious metals and gemstones you are cleaning.





Cleaning your jewelry with an ultrasonic cleaning machine

We do not recommend using an ultrasonic cleaning machine at home. Improper use could lead to loose stones, missing stones, or possible damage. Bring your items to your jeweler for a professional ultrasonic cleaning.

See how to clean your jewelry from an expert

Watch these videos to see helpful tips for how to clean your diamond ring and other types of jewelry.

<https://www.youtube.com/shorts/XPlE5vIWWcs>

HOW TO CLEAN A DIAMOND ENGAGEMENT RING

 **briteco**
Jewelry Insurance Transformed




Protecting your investment with specialty jewelry insurance

When your jewelry is made of a precious material that includes natural diamonds, lab grown diamonds, gemstones, and precious metals it should be insured. Jewelry should always be insured and protected in case it gets lost or stolen.



You can expect jewelry insurance costs between 0.5–1.5% of appraised value. Since jewelry insurance is a must, don't put it off.



Companies like  **briteco** make jewelry insurance extremely easy and affordable and they promise to take care of you for the lifetime that you have your beautiful piece of jewelry. If you have a piece you are looking to get insured you can get a custom quote online in under a minute at Brite.co.



Get a custom quote for jewelry insurance
in less than 30 seconds



ABOUT THE AUTHORS



Dustin Lemick, CEO and board member of Brite-Co, is a third-generation jeweler with over thirteen years of retail jewelry experience. Lemick's family has owned and operated retail locations in the Chicagoland area for over seventy years. He graduated with a BS in economics from the University of Wisconsin-Madison and holds a Graduate Gemologist degree from the Gemological Institute of America (GIA). Lemick has been processing and handling jewelry claims for 10+ years for large primary insurance companies such as State Farm, Allstate, Chubb, and Farmers. He has in-depth, proficient knowledge and expertise in appraisal systems, diamond and gemstone markets, retail pricing models, insurance replacement models, and jewelry quotation pricing systems.

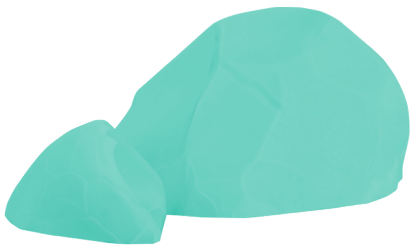


Rachel Akmakjian is the Jeweler Channel Manager for BriteCo. She has more than eight years' experience in jewelry marketing, retail, diamond wholesale, and managing her own company that specializes in creating custom jewelry pieces. Rachel is currently a student at the Gemological Institute of America, on track to receive her Graduate Gemology certificate by the end of this year. Her education and experiences have given her an in-depth understanding of the demands and expectations facing jewelers and their customers in today's evolving retail marketplace.

See Why Lab Grown Diamonds Are Becoming More Popular Every Day

More than one out of ten diamonds purchased these days are lab grown or man-made diamonds. While lab grown diamonds are manufactured in special facilities rather than mined from the earth, they are real diamonds. Read this [Smart & Savvy Buying Guide to Lab Grown vs Natural Diamonds](#) to learn more.

NATURAL



Natural diamonds formed under the earth over **millions of thousands of years**

Rarer because of **limited supply**

Average spent on natural diamond engagement ring **\$8000+**

Natural diamonds **claim ethically sourced**



LAB GROWN



Lab Grown diamonds are **created in a laboratory** within a few weeks time

Less expensive with **unlimited supply**

Average spent on lab grown diamond engagement ring of **same size and quality \$4,000**

Lab grown diamond makers claim **more environmentally friendly**

No matter which type of diamond you buy, be sure to protect your purchase with fast, easy, and affordable specialty jewelry insurance from BriteCo.

ABOUT



Established in 2018 by a third-generation retail jeweler, BriteCo is a leading insurance technology company focused on transforming the jewelry insurance industry for the digital age. BriteCo has democratized the process of buying 5-star rated jewelry and watch insurance for consumers with an easy-to-use online application, superior coverage in minutes, and an affordable subscription-like monthly payment option. **Visit us at <https://brite.co/>**

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