Lab-Grown, Synthetic & Simulated Gemstones: What’s the Difference?

Gemstone Names & Buying Guide · https://imiyoo.com/FAQ/lab-grown-synthetic-simulated-gemstones-whats-the-difference/

If you're shopping for a colored gemstone, you might see words like *natural*, *lab-grown*, *synthetic*, *simulated* or *imitation*. They can sound similar, but they don't mean the same thing.

The easiest way to understand the difference is to ask two questions: **What material is the stone made of, and where did it come from?**

Natural gemstones: formed in the earth

A natural ruby, sapphire or emerald forms through geological processes. The stone is then mined, cut and polished for jewelry.

Natural gems can appeal to people who value the way a stone formed, its rarity or its documented origin. Those qualities can affect price—but natural gemstones still vary widely in color, clarity, cutting and overall quality.

Lab-grown gemstones: the same gem material, a different origin

A **lab-grown ruby** is ruby (corundum) grown in a laboratory instead of underground. A **lab-grown sapphire** is also corundum. A **lab-grown emerald** is emerald (beryl) made through a laboratory growth process.

Because they share the defining mineral identity of their natural counterparts, these are different from glass or another material made to resemble the gemstone.

Laboratory growth can offer more accessible ways to enjoy a color or size you love. You may be able to put more of your budget toward the setting, cut or center-stone appearance rather than natural

rarity. As with mined stones, individual lab-grown gems still vary in color, clarity and quality.

Does “synthetic” mean fake?

In gemology, **synthetic** often means a laboratory-grown material with essentially the same chemical composition and crystal structure as a naturally occurring gemstone.

So **synthetic ruby** and **lab-grown ruby** describe ruby produced in a laboratory, rather than mined ruby. The word *synthetic* may sound less familiar to shoppers, but it isn't automatically another word for glass or imitation.

The important part is the complete material description. A lab-grown sapphire should be identified as **lab-grown sapphire**, not simply marketed as a mined sapphire.

Simulated and imitation gemstones: a similar look, different material

A **simulant** is a material used to resemble another gemstone. It may look similar, but its chemical composition and properties are different from the gem being imitated.

For example, cubic zirconia can imitate the appearance of diamond, but it isn't diamond. A blue lab-grown spinel may be used for an aquamarine-inspired look, but spinel isn't aquamarine (beryl).

Here's where it gets interesting: **a stone can be a genuine laboratory-grown example of one material and a simulant of another.** Lab-grown spinel is spinel. If it's used to imitate the look of aquamarine, that doesn't turn it into beryl aquamarine.

There's nothing inherently wrong with choosing a color-inspired material. It can be a practical design choice. You should simply know what you're getting.

Where do moissanite and YAG fit?

These are useful examples of why material names matter.

Moissanite is silicon carbide, not diamond. The moissanite commonly used in jewelry is laboratory-manufactured. It can be chosen for its own appearance and sparkle, or as a diamond-look alternative,

but it shouldn't be described as lab-grown diamond.

YAG (yttrium aluminum garnet) is a man-made crystal with a garnet-type structure. It's not lab-grown tsavorite garnet or Paraiba tourmaline. A YAG stone with a tsavorite- or Paraiba-inspired color is still YAG.

What should you look for when choosing a stone?

You don't need to memorize every chemical formula. Just look for a description that answers these questions:

- **What is the actual material?** Ruby, sapphire, emerald, spinel, YAG, moissanite, diamond or something else?
- **Is it natural or laboratory-produced?** If it's a color imitation, what is it imitating?
- **What matters for your jewelry?** Consider the color, cut, dimensions, price and how often you plan to wear it.

If you love a particular shade, tell us what you have in mind. We can talk through the materials that create that look and help you understand the options for your design.

Frequently asked questions

Are lab-grown rubies and sapphires made of glass?
No. They are laboratory-grown corundum, the same defining mineral material as natural ruby and sapphire.

Is synthetic sapphire the same as simulated sapphire?
No. Synthetic sapphire is lab-grown sapphire. A simulated sapphire is a different material used to imitate a sapphire-like appearance.

Is moissanite a type of lab-grown diamond?
No. Moissanite is silicon carbide; diamond is carbon. They are different gemstone materials.

Does a color name always tell me what a stone is made of?
No. Some names describe a color style rather than a mineral. Look for the actual material listed alongside the name.

Are lab-grown stones always cheaper or clearer than natural ones?

Not always. Many lab-grown options are more accessible than comparable high-quality natural gems, but prices and appearance depend on the material and individual stone.