**DIAMONDS**

**Diamond** is a [solid form of the element carbon](https://en.wikipedia.org/wiki/Allotropes_of_carbon) with its atoms arranged in a [crystal structure](https://en.wikipedia.org/wiki/Crystal_structure) called [diamond cubic](https://en.wikipedia.org/wiki/Diamond_cubic). At [room temperature and pressure](https://en.wikipedia.org/wiki/Standard_conditions_for_temperature_and_pressure), another solid form of carbon known as [graphite](https://en.wikipedia.org/wiki/Graphite) is the [chemically stable](https://en.wikipedia.org/wiki/Chemical_stability) form of carbon, but diamond converts to it extremely slowly. Diamond has the highest [hardness](https://en.wikipedia.org/wiki/Scratch_hardness) and [thermal conductivity](https://en.wikipedia.org/wiki/Thermal_conductivity) of any natural material, properties that are used in major industrial applications such as cutting and polishing tools. They are also the reason that [diamond anvil cells](https://en.wikipedia.org/wiki/Diamond_anvil_cell) can subject materials to pressures found deep in the Earth

* CARAT

Carat is **the unit of measurement for the physical weight of diamonds**. One carat equals 0.200 grams or 1/5 gram and is subdivided into 100 points. For comparison, in units more familiar in the United States, one carat equals 0.007 ounce avoirdupois. Which would require over 2,265 carats to equal 1 pound!.

* COLOR

A chemically pure and structurally perfect diamond is perfectly transparent with no hue, or color. However, in reality almost no gem-sized natural diamonds are absolutely perfect.

* CLAITY

Diamond clarity is the quality of diamonds that relates to the existence and visual appearance of internal characteristics of a diamond called inclusions, and surface defects, called blemishes.