

The science behind ashes to diamonds: how mourning the dead has gotten high-tech

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With the constant progress of science, it isn't unexpected that humans have found a way to mimic some of the greatest geological forces that exist. While diamonds are gems mother nature needs to cradle for hundreds of millions of years, scientists can now manufacture them in just a few months.

What's perhaps unexpected is that the process has been integrated into modern mourning rituals. Some companies help families memorialize their loved ones by turning their ashes into diamonds. But how is cremation jewellery made, exactly?

What Are Diamonds Made Of?

The secret behind the 'ashes to diamonds' technology lies in carbon. This element is what diamonds are made of. Carbon also represents about 18% of the human body. This is the reason why, after the cremation process, the remaining ashes can be used by scientists as raw material for manufacturing diamonds.

How Does The Transformation Take Place?

Human ashes turn to diamonds by following a rather complex and lengthy process, which can be summed up in four general steps:

1. Analyzing The Sample

In order to grow a diamond, pure carbon is needed. The ashes that customers send are usually analyzed beforehand. This process will determine the composition of the sample. Knowing the chemicals which need to be removed will help scientists choose the best purification methods.

2. Extraction And Purification

The extraction and purification processes are chemical. The most common contaminants are boron and salts. Boron is a chemical element that will interfere with the color of the diamond. If not extracted, it will give the gem unexpected shades of blue.

The desired purity for the carbon is of 99% or more.

3. Temperature and Pressure

[According to Heart In Diamond in the UK](#), ashes are turned into diamonds out of the carbon sample by mimicking the same conditions found deep within the Earth's crust with temperatures exceeding 2000 degrees Celsius and pressure in excess of 60000 atmospheres.

As for the pressure? Imagine the weight of about 450 tons resting on a surface that has the size of

a pocket watch. This merely points out the fascinating process behind the creation of this type of diamonds.

4. Polishing

While some clients are happy with the rough diamonds, the majority of them do prefer them to be polished into a shape of their desire. This is, however; not a mandatory step of the 'ashes to diamonds' process, and it takes place outside the lab.

Final Thoughts

You might think that the idea of turning ashes into diamonds has only dawned with the rise of high-tech. That is just partly true.

Going past the novelty of the process, the notion of mourning jewellery dates back to the Victorian Era. It is then when people have started to turn locks of their loved one's hair into rings, brooches or pins. In the end, it's about people using the technology of their time to dive into the concept of continuing bonds.

On a final note, turning ashes into diamonds enables us to turn the memories of our loved ones into remarkable, beautiful pieces we will look back on as years pass by. Maybe that's what cremation jewellery is all about.