

## Pandora Brilliance – information on sustainability

Our Pandora Brilliance collection uses sustainably lab-created diamonds. This document describes how Pandora works to ensure that the lab-created diamonds used in Pandora Brilliance are created in a sustainable manner.

### What are lab-created diamonds?

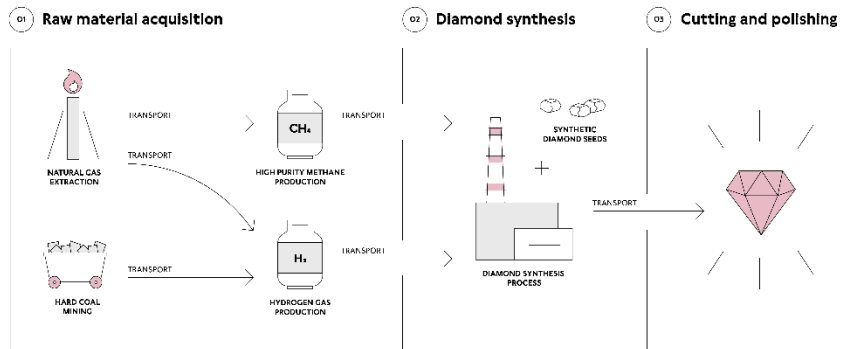
Every diamond in the Pandora Brilliance collection is a sustainably lab-created diamond. These stones are physically, chemically, and optically identical to their mined counterparts, and they are produced to the same measures of quality and consistency known as the 4Cs ([Colour](#), [Clarity](#), [Cut and Carat](#)). The sustainably lab-created diamonds used in Pandora Brilliance are all grown using the Chemical Vapor Deposition technology (CVD) that results in a diamond rough that is then cut and polished into unique, individual diamonds.

CVD technology is used to produce the sustainably lab-created diamonds used in Pandora Brilliance. This is a technique by which diamonds are grown from a hydrocarbon gas mixture. In the CVD process, a thin slice of diamond seed (a lab-grown diamond slice) is placed in a sealed vacuum chamber and heated to around 800 degrees Celsius. The chamber is then filled with a carbon rich gas (e.g. methane) along with other gases (e.g. hydrogen). The gases are subsequently ionized into plasma using microwaves, lasers, or other techniques where a large amount of electricity is required. The ionization breaks the molecular bonds in the gases and the pure carbon adheres to the diamond seed and slowly builds up into a diamond, atom by atom, layer by layer.

### What is the value chain for lab-created diamonds?

The creation of sustainably lab-created diamonds follows three major production steps. We refer to this as the lab-created diamonds value chain. The value chain starts with the extraction of the raw materials to develop the gases used for the CVD process that produces the lab-created diamond rough that is then cut and polished, ready for hand setting in Pandora jewellery. The cutting and polishing step is similar to the cutting and polishing of mined diamonds. The three major production steps are illustrated in the graphic below.

## VALUE CHAIN OF LAB-CREATED DIAMONDS



The described value chain for lab-created diamonds has been developed by [Sphera Solutions Inc.](#) (Sphera), an independent third-party expert organisation. Pandora hired Sphera to undertake an independent assessment to identify environmental and social impacts in the value chain of lab-created diamonds for the CVD technology. In addition to identifying social and environmental impacts, the independent assessment also provides an overview of any significance of inherent risks of such impacts as well as an assessment of the feasibility of mitigating (or reducing) risks, so-called residual risks. The assessment has informed Pandora's efforts to ensure that the lab-created diamonds used in Pandora Brilliance are created in a sustainable manner. We refer to this assessment throughout this document, and the full assessment can be found [here](#).

### How are Pandora Brilliance lab-created diamonds sustainably created?

Pandora Brilliance lab-created diamonds are sustainably created. This means that we know the origin of every diamond, that they have achieved CarbonNeutral® product certification in accordance with the [CarbonNeutral Protocol](#), a leading global framework for carbon neutrality, that they have been responsibly sourced in accordance with international human rights and labour standards, and that all suppliers adhere to good industry practice for environmental, health and safety management.

Pandora manages potential sustainability impacts throughout the lab-created diamonds' value chain. As the primary potential impacts may occur when growing the lab-created diamonds (diamond synthesis) and the subsequent cutting and polishing of the lab-created diamonds, this is where most of our sustainability impact management efforts are directed.

We recognize, however, that potential impacts, primarily greenhouse gas emissions, may also occur in the extraction of the raw materials (mainly natural gas) to produce methane and hydrogen that are used in the production of the lab-created diamonds. However, based on the assessment performed by Sphera these are considered negligible when considering the share of natural gas used to produce CVD gases. Sphera's assessment finds that "the risks 'attributable' to the lab-grown diamonds from the CVD process is potentially minimal given the industry's share of total produced natural gas (to high purity methane and hydrogen) is negligible." For instance, Sphera estimates that only 0.00007% and 0.00002% respectively of total natural gas volumes are used to produce the hydrogen and methane used in the synthesis of lab-created diamonds. The relative share used for Pandora Brilliance sustainably lab-created diamonds is thus even smaller. The greenhouse gas emissions associated with extraction of natural gas and production of hydrogen and high purity methane are addressed by the CarbonNeutral® product certification for the Pandora Brilliance range.

**Origin of the lab-created diamonds**

Risk	Inherent risk*	Residual risk*
Risk of illicit trade that can contribute to armed conflict, money-laundering or other.	<p>Low</p> <p>There is no reported evidence of illicit trade in lab-created diamonds.</p>	<p>Low</p> <p>Pandora knows the origin of every lab-created diamond. Pandora and its jewellery supplier, who places the lab-created diamonds in final jewellery, are both certified against the RJC Code of Practices.</p> <p>All Pandora Brilliance lab-created diamonds are grown in Europe and North America.</p>

\*Inherent risk is the amount of risk that exists in the absence of risk mitigation, e.g. that there may be illicit trade in lab-created diamonds. Residual risk is the risk that remains after Pandora has taken proper precautions (risk mitigation), e.g. to prevent illicit trade in lab-created diamonds.

Every Pandora Brilliance lab-created diamond is made by the same two suppliers, the supplier who grows the diamond rough, and the supplier who cuts and polishes the diamond rough into final diamonds. Every diamond has a mark, invisible to the human eye, that identifies them as made for Pandora.

Once the lab-created diamond has been cut and polished, it is set into jewellery by a third supplier. Our jewellery supplier is certified against the Responsible Jewellery Council Code of Practice (RJC COP) that requires companies to have procedures in place to ensure the origin of diamonds and to separate mined diamonds from lab-created diamonds.

There is no evidence of illicit trade in lab-created diamonds. In combination with our controlled supply chain this means there is very low risk that lab-created diamonds are associated with armed conflict, form part of money-laundering schemes, or other illicit activities.

**Social impacts - responsibly sourced**

Risk	Inherent risk	Residual risk
<p>Health &amp; safety risks can be found mainly in cutting &amp; polishing incl. silicate dust inhalation, eye strain, poor posture leading to back and shoulder problems, long working hours and accidents with machinery.</p>	<p>Moderate risk</p> <p>Hazards can be effectively mitigated through good health and safety practices.</p>	<p>Low risk</p> <p>Pandora requires compliance with the Pandora Supplier Code of Conduct that is in line with internationally recognized human rights and labour standards.</p> <p>Pandora's supplier of lab-created diamond rough is operating in Europe and in North America. The European operations are certified according to ISO45001, the leading international health and safety standard.</p> <p>Pandora's cutting &amp; polishing supplier is audited against health and safety standards consistent with the RJC Code of Practice.</p>
<p>Labour issues incl. working hours, working conditions, compensation and others can be found in diamond synthesis and cutting &amp; polishing.</p>	<p>Moderate risk</p> <p>Labour risks are largely dependent on location of production and cutting &amp; polishing. Fair and good working conditions can be effectively assured.</p>	<p>Low risk</p> <p>Pandora requires compliance with the Pandora Supplier Code of Conduct that are in line with internationally recognised human rights and labour standards.</p> <p>Pandora's supplier of lab-created diamond rough is operating in Europe and North America, and it is audited against standards consistent with the RJC Code of Practice.</p> <p>Pandora's cutting &amp; polishing supplier is audited against labour standards consistent with the RJC Code of Practice.</p>
<p>Explosion risk</p>	<p>Moderate risk</p> <p>Moderate risk of explosion of storage of gasses</p>	<p>Low risk</p> <p>Comprehensive alarm system to detect leaks and automatically shutdown operations in the event of a leak, dilution of exhaust gasses to below explosive levels before release, extensive risk assessments and workplace controls are in place to support the systems that safeguard health and</p>

		<p>safety including employee wellbeing. Building Management Systems (BMS) are subject to regular external independent 3<sup>rd</sup> party auditors in compliance with ISO certification required standards.</p>
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## Pandora Responsible Sourcing Programme

The Pandora Responsible Sourcing Programme ensures that Pandora continuously works with suppliers that adhere to high social, environmental, and business ethics standards. This also applies to our suppliers of lab-created diamonds.

- All Pandora suppliers are required to adhere to expectations outlined in our [Supplier Code of Conduct](#). The Supplier Code of Conduct is aligned with the [Ethical Trading Initiative \(ETI\) Base Code](#) and is consistent with international expectations and standards including [ILO Fundamental Conventions](#), the [UN Guiding Principles on Business and Human Rights](#), and others. Compliance with laws and regulations is a baseline requirement.
- Pandora ensures supplier compliance with the Supplier Code of Conduct via our [Responsible Sourcing Programme \(RSP\)](#).
- Implementation of the RSP takes place through annual supply chain due diligence focused on raw materials and products used in our jewellery, and is performed in alignment with the [OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-affected and High-risk areas](#).
- Subject to our risk assessment, all high-risk suppliers must undergo third-party auditing including third-party auditing commissioned by Pandora, certification auditing of recognized standards, or other third-party auditing recognized by Pandora. This also applies to our suppliers involved in producing and cutting & polishing lab-created diamonds.
- Pandora publicly discloses on its website its policy and approach to supply chain due diligence and reports annually through its [Sustainability Report](#) consolidated and anonymous results of audits commissioned by Pandora.

## **Carbon neutral**

The assessment performed by Sphera identifies greenhouse gas emissions (GHG emissions) as the primary potential environmental impact in the lab-created diamonds' value chain. This is due to the amount of energy used in growing lab-created diamonds including the use of raw materials such as high-purity methane gases and hydrogen.

Pandora Brilliance sustainably lab-created diamonds are certified CarbonNeutral® products in accordance with The CarbonNeutral Protocol,

a leading global framework for carbon neutrality. To achieve CarbonNeutral® product certification for Pandora Brilliance, Pandora is working with a leading expert on carbon neutrality and climate finance, Natural Capital Partners.

The CarbonNeutral® certification covers the GHG emissions from the full lab-created diamonds' value chain including GHG emissions that may occur in the extraction and supply of natural gas (or coal) for the production of high purity methane and hydrogen used in the synthesis of the lab-created diamond rough (Scopes 1, 2, and 3). Sphera estimates that more than 90% of potential greenhouse gas emissions associated with a lab-grown diamond occur when growing the lab-created diamonds.

To date, the lab-created diamonds in the Pandora Brilliance collection have on average been grown with more than 60% renewable energy, and greenhouse gas emissions from non-renewable energy are being offset through our [CarbonNeutral® product certification](#). When Pandora launches the collection globally, the diamonds are expected to be made using 100% renewable energy.

In addition to achieving CarbonNeutral® product certification for the sustainably lab-created diamonds, Pandora has achieved CarbonNeutral® product certification for the full Pandora Brilliance collection including, for example, the entire piece of Pandora Brilliance jewellery and its packaging.

In order to achieve CarbonNeutral® certification, Pandora supports a carbon finance project that off-sets any remaining carbon emissions.

### **Community Reforestation, East Africa**

In order to offset remaining carbon emissions, Pandora supports a community reforestation project in Kenya and Uganda, [Community Reforestation, East Africa](#). The project organizes community-based tree planting initiatives with over 12,000 small groups involving 90,000 farmers. Under traditional practices, farmers clear trees to increase available agricultural land, which erodes soil quality by removing nutrients. Forestry projects such as this combine carbon sequestration with sustainable development, helping to improve community livelihoods through education and training, and create additional sources of income beyond smallholder farming. In addition, carbon finance is paid to farmers for surviving trees.

Key project impacts include:

- **Climate impact:** To date, over 15 million trees have been planted and are alive, growing and being monitored because of the project. Removing carbon from the atmosphere, delivering

emissions reductions to help take urgent action to combat climate change.

- **Training and education:** Nearly 50% of farmers have increased their food supply thanks to training on conservation farming.
- **Women's empowerment:** 42% of the members of small farming groups are women. Women are given access to leadership training and groups are encouraged to use a rotating leadership structure. This allows women to take on levels of managerial responsibility they may not have previously had.

The project is developed in line with the [Verified Carbon Standard](#), the world's leading voluntary GHG programme.