

### Clear commitment to climate protection

The SCHOTT Group is an international technology group that produces high-quality components and high-performance materials made of specialty glass, glass-ceramics and polymers. With our production, we belong to an energy-intensive industry with a large  $\mathrm{CO}_2$  footprint\*. However, we are facing up to this challenge. By 2030, our goal is to achieve climate-neutral production (Scope 1+2 according to the GHG Protocol).

On this journey, our approach is based on the principle of avoid-reduce-compensate. Our climate targets are aligned with current climate science, demonstrated by our membership in the global Science Based Targets initiative (SBTi), whose members are pioneers in the decarbonization of the economy. We have set ourselves specific reduction targets for our emissions in Scope 1, 2 and 3 and have had them reviewed and confirmed by the SBTi.

We are pleased that you also place value on purchasing products with reduced  $\mathrm{CO}_2$  emissions and are happy to provide you with information on our  $\mathrm{CO}_2$  emissions – because for those wanting to develop sustainable products, knowing the exact level of the emissions contained in the supplied components is paramount.

# Transparent calculation for our products based on a clear standard

As part of our sustainability efforts, we use PCF Declaration Sheets to transparently present the greenhouse gas emissions of our products for the cradle-to-gate system boundary.

\* References to CO<sub>2</sub> in this document also cover CO<sub>2</sub> equivalents (CO<sub>2</sub>e)

To provide a solid basis for calculation, we have developed a standardized PCF Guideline based on the ISO 14067 standard, and had it certified by independent auditors.

Thus, our customers are provided with a clear basis to determine the emissions of their products more credibly, identify potential for improvement, and develop further strategies for decarbonizing their own production. In this way, we ensure greater transparency in the supply chain.

# Calculation according to certified PCF Guideline

The SCHOTT PCF Guideline for the preparation of product-related greenhouse gas balances was verified by GUTcert GmbH against the requirements of ISO 14067, the GHG Protocol Product Standard, and the TfS Product Carbon Footprint Guideline.

The Guideline meets all requirements for determining a complete product carbon footprint using the cradle-to-gate accounting approach, in accordance with the aforementioned standards. This includes the

accounting system and the determination of greenhouse gas-relevant information.

Greenhouse Gas Protocol Product Standard & ISO 1406

Conformity of the SCHOTT PCF-Guideline Version 1





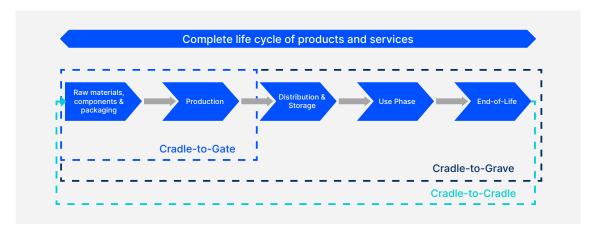


# **SCHOTT PCF Guideline**

# **Executive Summary: Essential information at a glance**

It is important for us to provide an insight into our selected criteria, collected data quality and included standards. This Executive Summary serves to transparently present the essential contents of SCHOTT's internally certified PCF Guideline.

System boundary: Cradle-to-Gate



**Approved standards:** ISO 14067, GHG Protocol Product Standard, TfS Product Carbon Footprint Guideline

### Included emission sources:



### Raw materials, components & packaging

- Assessment using primary data (emission factors (EF) from suppliers) and matched secondary data (relevant EF databases, e.g. ecoinvent)
- Evaluation of transport from the supplier to SCHOTT



#### Production energy

- Consideration of upstream electricity emissions with 100% green electricity
- · Assessment of heat with the relevant energy source and upstream supply chain emissions
- Consideration of unspecific operating times (German: Wannenzeiten) allocated proportionally among the products (e.g. tempering phase, remodelling processes, repairs and maintenance)



#### Process-related emissions

 Consideration of the emissions released due to thermal carbonate decomposition of the smelting raw materials



### Waste and wastewater

- · Utilisation and disposal of hazardous and non-hazardous waste and wastewater
- Consideration of transport to the recycler



## Internal transport

- Transport between processing steps or the return transport of cullet
- Emissions from services within the system boundary, but which may be carried out by third parties



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#### Other sources of emissions:

- Optional: Packaging materials from suppliers
- Excluded: Employee commuting, business travel, lighting and heat from production facilities, company vehicles, research and development, capital goods (plant engineering, overheads not allocated to product)



#### Data quality:

Activity data is assessed with DQR and PDS according to TfS PCF Guideline



#### **Cut-Off criteria:**

Material and energy input min. 95% of the product according to TfS PCF Guideline



#### **Emission Factors:**

- All greenhouse gases according to Kyoto with IPCC 2021, GWP 100a
- Evaluation of the emission factors with DQR according to TfS PCF Guideline
- Sources used are kept in an internal EF table and updated annually:
  - Suplier-specific
  - ecoinvent
  - DBEIS
  - Others as required

PCF = Product Carbon Footprint; GWP = Global Warming Potential; DQR = Data Quality Rating; EF = emission factor; IPCC = Intergovernmental Panel on Climate Change; TfS = Together for Sustainability; PDS = Primary Data Share





