Guidelines for Product Carbon Footprints

We are committed to sustainability and reducing our carbon footprint. To support this effort, we kindly request that you provide the Product Carbon Footprints (PCFs) for products as discussed with your procurement contact. Please ensure that these PCFs conform to international standards such as PACT (Partnership for Carbon Transparency PACT: Partnership for Carbon Transparency) or TfS (Together for Sustainability Scope 3 GHG emissions programme - TFS Initiative) for those in the chemical sector.

PACT and TfS are frameworks designed to ensure compliance with all relevant international standards (ISO/GHG Protocol/Product Category Rules) and provide methodologies therein.

Introduction

This guideline has been created to guide Essity's partners in product carbon footprint (PCF) calculations. This data may be used by internal stakeholders to aid in decision-making and for use in carbon pricing mechanisms. It is important that the data received is calculated in a similar way, to enable fair and objective comparison, and enable combining the results for the complete product.

The guideline is focused on PCF assessments, i.e., assessment of the climate impact. The approach described in the guideline is attributional, i.e., a book-keeping assessment, which does not allow for accounting for credits.

Requested content

The report should include a summary table (see example below) and a short description of how the calculation was performed.

Name of the material covered	
Manufacturing location of the material	
Validity dates of the PCF	For what dates is the PCF valid to and from
Declared/functional unit	e.g. kg, piece
Cradle-to-Gate (your gate) carbon footprint (GWP 100 years)	include scopes 1, 2, and 3.1, 3.3, 3.4, and 3.5 including and excluding biogenic carbon
Gate-to-Gate carbon footprint (GWP 100 years)	only your scopes 1 and 2
Characterization Factors	IPCC 2021 AR6 GWP100a
PCF standard followed in the assessment	ISO 14040/14044/14067 / GHG Protocol / TfS guideline / PathFinder Framework (WBCSD PACT)
Carbon content (fossil and/or biogenic)	Carbon content of material expressed as kg CO2-eq
Emission factors: e.g. primary data from suppliers, secondary data from LCI database	Examples: (sphera MLC, AIST-IDEA v3.4, ecoinvent v3.11), public database, etc.
Primary Data Share: share of primary data in the final PCF	calculated according to current WBCSD Pathfinder Framework, and share the % of primary data in the PCF
Recycled content (%), Bio-based content (%) or proportion attributed via Mass balance (%)	If relevant
Assurance statement	share with us if the PCF was reviewed by an internal expert or has third-party verification

Additional information/guidelines

Declared unit:

The declared unit is the reference base that the PCF result refers to. For materials, the declared unit should be 1 kg of material. For finished products, the declared unit should be 1 finished and packaged product. Please specify the weight of the product if a finished product is delivered.

Material specifications:

Please specify he content of biobased and recycled material in each material (in %). Based on ISO14021 standard, only pre-consumer[1] and post-consumer[2] materials shall be considered. The proportion of bio-based or chemically recycled resources attributed via mass-balance shall be reported separately.

Characterization factors:

The carbon footprint should be calculated based on the latest Global Warming Potential (GWP) 100 years characterisation factors from IPCC. All greenhouse gases should be considered (not only CO2) and the unit to be used is kg CO2-eq. A complete list of GWP factors is available in the IPCC's sixth assessment report (AR6), Sixth Assessment Report — IPCC

Carbon offsetting:

Carbon offsetting (compensating for greenhouse gas emissions by participating in schemes designed to make equivalent reductions of greenhouse gas emissions in the atmosphere) should not be considered in the carbon footprint calculation.

Renewable electricity:

Regarding electricity use, a purchase agreement may be used to demonstrate that a specific electricity mix has been used. Also, other contractual instruments such as Renewable Energy Certificates may be used, as long as reliability, traceability, and the avoidance of double counting are ensured and guidelines in the GHG Protocol or CDP are complied with.

Carbon content:

This refers to the amount of carbon present in a material, usually expressed as a percentage by weight. It's a measure of how much carbon is contained within a specific substance. Please express this

Biogenic carbon:

This refers to the carbon that is absorbed and stored by living organisms, such as plants and trees, during their growth. This carbon is part of the natural carbon cycle and is temporarily removed from the atmosphere when it is stored in bio-based products.

Inclusion of biogenic carbon involves accounting for the carbon that is absorbed by plants during their growth and stored in bio-based products. This is typically done using the -1/+1 approach:

- When biogenic carbon enters the system (e.g., when a tree absorbs CO2 during growth), it is recorded as a negative value (-1), representing the removal of carbon from the atmosphere.
- When biogenic carbon leaves the system (e.g., when the product is burned or decomposes), it is recorded as a positive value (+1), representing the release of carbon back into the atmosphere.

Exclusion of biogenic carbon means not accounting for the carbon absorbed and stored in bio-based products. This can be done by using a 0/0 approach:

- When biogenic carbon enters the system, it is recorded as zero.
- When biogenic carbon leaves the system, it is also recorded as zero.

It is preferred, if possible, to be provided with the GWP as two figures, including biogenic carbon and excluding biogenic carbon. This allows for transparency of the carbon cycle, highlights the benefits of using bio-based materials, aids in meeting regulatory requirements in which inclusion of biogenic carbon is required while also allowing for simplification in accounting, clear focus on fossil carbon emissions, and assists in avoiding double counting.

Transports:

Please **exclude** any transport emissions from your gate to ours.

[1]Pre-consumer material is material diverted from the waste stream during a manufacturing process. Excluded is reutilisation of materials such as rework, regrind or scrap generated in a process and capable of being reclaimed within the same process that generated it. For example, during the production of non-woven fabrics, there may be off-cuts or scraps generated as a by-product of the manufacturing process. If these scraps are collected and reused within the same production cycle instead of being sent to a landfill, they are classified as diverted pre-consumer material rather than recycled material. This is because the material has not yet reached the consumer and is reused within the same industrial process, rather than being recovered post-consumption and reprocessed into a new product.

[2]Post-consumer material is material generated by households or by commercial, industrial, and institutional facilities in their role as end-users of the product which can no longer be used for its intended purpose. This includes returns of material from the distribution chain.