

uvex



The uvex CO₂ footprint

More transparency
for a better
global climate

protecting people

CO₂ footprint

Definition

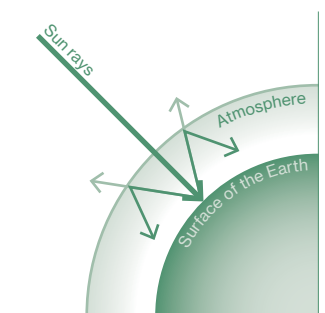
What is CO₂?

Carbon dioxide is a chemical compound made of carbon and oxygen. It is a natural component of air and one of the most significant greenhouse gases. Carbon dioxide is a natural by-product of the cell respiration of many living organisms and is also produced by burning wood, coal, oil and gas.

Unlike other substances, CO₂ does not degrade when released into the atmosphere. During the carbon cycle, released CO₂ is either physically stored by bodies of water or converted by green plants during photosynthesis.

However, it is not just natural processes that release CO₂, humans also leave a large CO₂ footprint on our planet. The burning of coal, oil or natural gas used domestically to heat and power our homes, or industrially for the goods we consume, releases significantly more CO₂ than can be absorbed. Natural carbon sinks cannot sufficiently bind or convert the additional CO₂ caused by human activity. The natural interplay of emission and absorption is consequently out of balance. The greenhouse gases contained in the atmosphere absorb the heat emitted by the earth and immediately release it in all directions. Principally because of the increase in CO₂ particles in the atmosphere, less and less heat radiation can escape into space.

The consequence? Global warming is accelerating.



Global warming:

The more greenhouse gases are released into the atmosphere, the more severely and rapidly the earth heats up as less long-wave heat radiation can escape into space.

What do we mean by CO₂ footprint?

The CO₂ footprint is the result of an emission calculation or balancing of all greenhouse gases released by an activity, process or action. The effect that various greenhouse gases have on the climate is expressed in CO₂ equivalents*.

* CO₂ equivalent (CO₂-eq.) is a unit for standardising the measurement of the impact that different greenhouse gases have on the climate

uvex product highlight

Helmet shell
30%
bio-based material

Headband
50%
recycled material

Product packaging
100%
recyclable



1.99kg

Calculation date:
07/2024*

uvex pheos planet

The lightweight uvex pheos planet safety helmet features a sporty design and offers maximum wearer comfort. All individual packaging is made of regranulated material. The user instructions are printed on 100 percent recycled paper.



protecting planet

by using recycled material //
by using bio-based material



* **Information:** Values are rounded to max. three decimal places • **Calculation of transport:** Transport of the product incl. sales surcharge of the product group • **Calculation method:** IPCC 2021 GWP 100a (based on ISO 14067) SimaPro with corresponding databases. These CO₂ values are valid at the time of calculation and may be subject to change. • **Scope:** cradle-to-customer • **Unit:** kg CO₂e

CO₂ footprint

Motivation

How and why are we calculating the CO₂ footprint of our products?

To help achieve the goals set out by the European Green Deal on climate neutrality by 2050 at the latest, the current emissions must first be calculated so that subsequent potential savings can be identified.

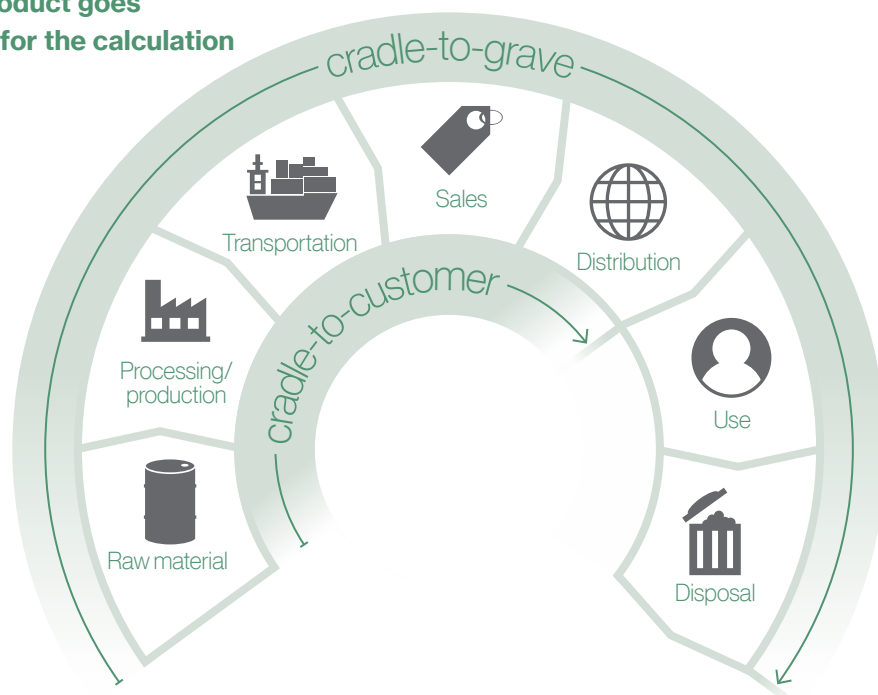
To determine transparency of our products' greenhouse gas emissions throughout the entire supply chain and to provide our customers with a comprehensive view of their company's carbon footprint, we calculate our products' CO₂ footprints.

All relevant processes that a product goes through are taken into account for the calculation

We distinguish between two principles.

cradle-to-customer
Calculation from raw material to customer.

cradle-to-grave
Includes the cradle-to-customer calculation and extends beyond the useful life to include disposal.



uvex product highlight

All materials
100%
compostable

Production
100%
in Europe

On-site emissions
>50%
offset



uvex suXXeed greencycle planet

This collection was designed to be recycled. At the end of the product's life, all of it can be returned to the cycle.



protecting planet

by reducing waste //
by using compostable material //
by maximum reduction of pollutants

Cradle to Cradle Certified™ is a registered trademark of the Cradle to Cradle Products Innovation Institute.

In our customer communication we use the cradle-to-customer calculation, as we currently have no influence on the disposal process and CO₂ emissions vary widely depending on this. For example, waste in Italy is mostly disposed of in landfills, while in Germany it is mostly incinerated. As we can only speculate about the waste scenario and have no influence on the disposal of the product, we only show the cradle-to-grave value on the result data sheets.

In general, we use the data collected to identify potential CO₂ savings. The calculation may also be used as a basis for future design and product development processes.

In addition, the calculation can be used to compare different materials in products.

Example:

Comparison of the uvex 1 G2 planet safety shoe with the standard model, where the use of recycled raw materials and regranulated material leads to savings.

Results data sheet

Based on the findings, we are now preparing a results data sheet with all the important information, which can be used for presentation to the customer.

In this data sheet, the result is divided into various emission categories.

uvex	
Result CO₂-footprint	
[Table with 2 columns and 1 row]	
Scope of investigation	
[Table with 2 columns and 1 row]	[Image placeholder]
Overview CO₂-equivalents	
[Table with 4 columns and 1 row]	[Table with 4 columns and 1 row]
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protecting people	

Detailed description of the product with image and data basis

Result of the calculation including method and creation date

Overview of the result with division into emission categories

Within the cradle-to-grave footprint, a distinction is made between material, manufacturing, transport, packaging, use (if applicable) and disposal

CO₂ footprint

Measurement methodology

Which measurement method do we use to calculate a product's CO₂ footprint?

uvex calculates the CO₂ footprint of products using the measurement method specified in the ISO 14067* standard.

For the calculation, we use the SimaPro software package and the ecoinvent database, information we obtain from our suppliers and datasets based on our own measurements.

For independent verification of our measurement method and corresponding calculation of the CO₂ footprint, we prepared a calculation report of the uvex 1 G2 planet safety shoe. The method was performed in accordance with ISO 14067 and the report has successfully passed a compliance audit. We chose the safety shoe for testing as it is our most comprehensive and complex product.

All products are calculated in the same way as in this method.

* The ISO 14067 standard is the basis for the procedure for developing a 'Product Carbon Footprint'

uvex product highlight

Health protection
REACH
regulations are exceeded

Sustainable materials
45%
bamboo fibres | recycled polyamide

Skin compatibility
dermatologically approved by the
proDerm
Institute



CO₂
0.47 kg
Calculation date: 04/2024*



protecting planet

by using bio-based material //
by using recycled material //
by maximum reduction of pollutants

uvex Bamboo TwinFlex® D xg planet

By using bamboo viscose, uvex is utilising a renewable raw material and recycled polyamide. The glove significantly exceeds REACH regulations and the skin compatibility has been dermatologically approved by the proDerm institute.

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uvex product highlight

Production

0%

fossil fuels

Thumb grips

100%

recycled polypropylene



uvex xact-fit planet

SwedSafe, part of the uvex group, has a very small CO₂ footprint. 100 percent of the power used to produce uvex xact-fit planet comes from renewable energy sources. SwedSafe is certified in accordance with the ISO 14001 environmental management standard.



protecting planet

by using recycled material //
by maximum reduction of pollutants

Collating supplier information

To increase the accuracy of our calculations, we consider information specific to our value chain. This includes contacting our suppliers in order to obtain the relevant data to model processes ourselves. Therefore, changes in the result are possible at any time if a general value is replaced by a supplier's more accurate value.

Example:

For polyamide, depending on the source, you get between 2.8 kg of CO₂-eq. and 12.2 kg CO₂-eq. per kg of material.

Performing our own measurement

In our plants, we record waste figures, energy consumption and production figures. It is particularly important to know the individual production steps so that the carbon footprint can be represented as comprehensively as possible.

Calculation with 'SimaPro' software

To calculate the CO₂ footprint of a product, we use the SimaPro software package with the ecoinvent database. This contains life cycle inventory data on energy, materials, transport etc.

Using this software, various factors such as materials, production processes, transport routes and methods as well as a disposal process are selected and put together to form a total component. The result including background processes is now calculated using the data obtained.

The values in the database are averages for common materials and cannot be broken down to a specific manufacturer's product.

These are therefore only general values. Nevertheless, the database is 'live' and regular updates ensure that additional data is added or known data is adapted. This means that changes to the result are possible at any time.

Important:

Calculation methods are constantly revised and are subject to change. It is possible that a different method may be used to evaluate our calculation at any time and that different results will be obtained from the same calculations. It is therefore important to include the method used and the calculation date in the communication.

As a calculation method, we currently use the IPCC 2021 GWP 100a* (100-year time horizon Global Warming Potential) from the Intergovernmental Panel on Climate Change.

* IPCC 2021 GWP 100a is a method of calculation in accordance with the latest research

CO₂ footprint

Comparability

Why doesn't it make sense to compare our CO₂ footprints with CO₂ footprints of other companies?

Due to the universal applicability of some standards and different calculation methods, there are interpretation issues and questions that can affect the consistency and comparability of results. When considering CO₂ footprints from other companies, the methodology, system limit and functional unit must always be questioned to ensure a certain comparability.

uvex product highlight



0.11kg
Calculation date:
02/2023*

Lens
100%
mass-balanced**
PC

Hard components
of side arms
65%
from recycled material

Soft components
of side arms
47.7%
from post-consumer
recycled material (PCR)

uvex pheos nxt planet

The uvex pheos nxt combines a classic sporty design with comfort, lightness and optimum protection. The special design of the side arms is not just visually impressive: The directional structure ensures extremely good grip – even for demanding work.



protecting planet

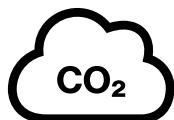
by using recycled material

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** Mass-balanced products are products whose production has been proven to use bio-based raw materials or primary products within a specified scope and without biogenic carbon being reliably detectable in the final product. Mass balancing is a bookkeeping method (e.g. for the proportion of recycled materials) for recording and tracking the mass flows of plastics along the entire value creation chain. In this process, fossil-based raw materials are replaced during production, for example through the replacement of CO₂, biomass or secondary raw materials from chemical recycling. Since the mass-balanced approach is a bookkeeping method, the exact proportion of recycled materials in the product cannot be determined exactly.

Presentation on the uvex website

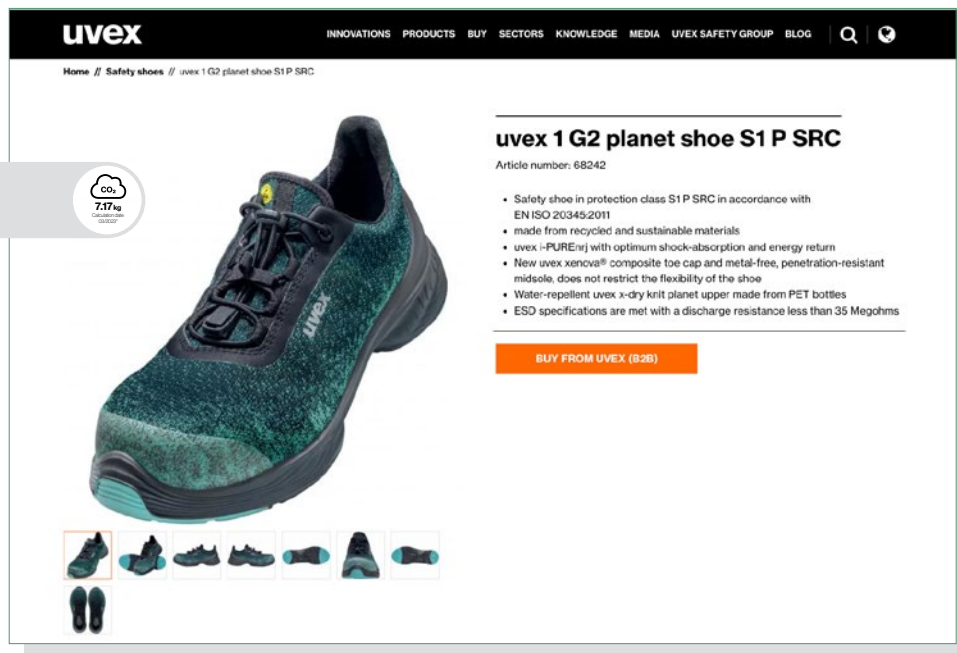
The presentation of the result on the website will appear as follows. For support and more detailed data, the results data sheet mentioned can be used for communication with the customer.



7.17 kg

Calculation date:
03/2023*

Material	4.27
Production	1.81
Packaging	0.67
Transportation	0.42
In total / kg CO₂e	7.17



Why is the CO₂ footprint a selling point?

With the CSRD and EU Taxonomy Regulation coming into force, the carbon footprint of every product used in a company becomes an important part of its overall carbon footprint.

By specifying the CO₂ footprint of its products, uvex already offers a high level of transparency, thus aiding in the selection and evaluation of more sustainable products. The determined CO₂ values allow a comparison between uvex standard products and products with sustainable features, such as proportions of recycled or bio-based materials.

The amount of CO₂ saved per product can easily be extrapolated to the number of employees in a company. This can quickly lead to significant savings in relation to the service life, thus immediately reducing the company's CO₂ footprint. For example, a uvex 1 G2 planet with 7.3 kg CO₂ saves 1.1 kg CO₂ per pair compared to a uvex 1 G2 with a knitted shaft with 8.4 kg CO₂. Assuming a service life of 12 months this would be just under one tonne of CO₂ per year for 900 employees. That is equivalent to a journey of 4900 kilometres with a mid-range petrol engine.

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