

uvex



The uvex CO₂ footprint

More transparency for sustainable products



uvex group
Plastics and rubber
industry category



uvex safety group



uvex cagi

protecting people

CO₂ footprint

Definition

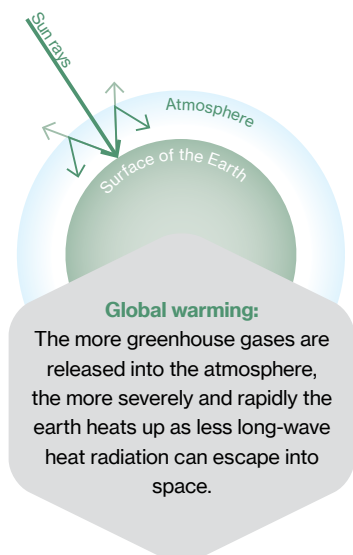
What is CO₂?

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.



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 (CO₂e) is a unit for standardising the measurement of the impact that different greenhouse gases have on the climate



0.28 kg CO₂e

Calculation date:
04/2024*

uvex product highlight

uvex phynomic XG planet

The ideal combination of sustainable materials and durability. Both help protect the environment. The fabric, which makes up more than 50% of the total product weight, is made of recycled polyamide material. This has reduced the carbon footprint by 20% to just 0.28 kg CO₂e (04/2024) when compared to the previous version without recycled polyamide material. The packaging is also made of 100% paper and cardboard.

Health protection
REACH
overperformance

Sustainable materials
50%
recycled polyamide

Skin compatibility
dermatologically approved by the
proDerm
Institute

* **Information:** Values are rounded to max. three decimal • Berechnunplaces • **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 achieve our science-based climate targets and reach carbon neutrality by 2045, we must first gain a transparent understanding of the CO₂ emissions across our product portfolio.

We therefore calculate the carbon footprint of our products in accordance with ISO 14067, taking into account all materials, processing steps, transport routes, and packaging throughout the product lifecycle up to delivery to the customer. We then use the results to identify specific reduction potentials. Additionally we support our customers in taking a holistic view of their overall corporate footprint.

Example:

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

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

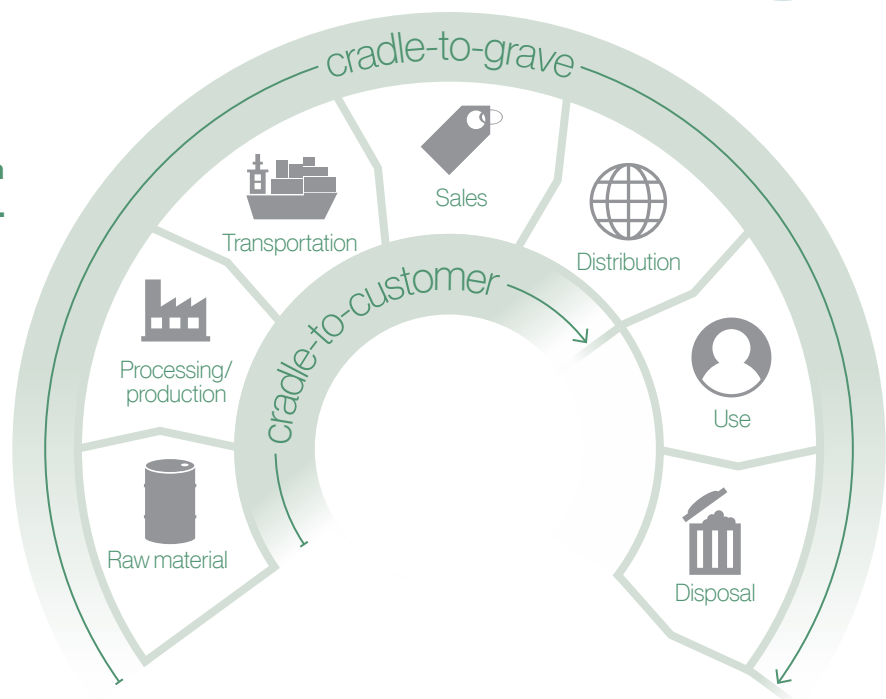
We distinguish between two principles.

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

uvex suXXeed essentials Bundhose Herren

The new suXXeed essentials collection combines modern design with proven functionality and a high level of wearer comfort. Sporty fits and ergonomic details offer maximum freedom of movement and flexibility for all requirements. The main material consists of 65% GRS certified recycled polyester. (GRS=Global Recycled Standard).



Material
65%
recycled PES
(GRS certified)

35%
cotton
OEKO TEX
Standard 100



5.07 kg CO₂e

Calculation date:
08/2025*

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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 (1 kg of polycarbonate equals 0.097 kg of CO₂e), while in Germany it is mostly incinerated (1 kg of polycarbonate corresponds to 2.34 kg of CO₂e).

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.

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.

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Result CO₂-footprint

Scope of investigation

Overview CO₂-equivalents

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.



6.09 kg CO₂e

Calculation date:
06/2025**



Upper material
100%
recycled polyester

Midsole
15%
recycled PU waste

Lining
18%
bio-based bamboo

uvex product highlight

uvex 1 x-craft planet

Designed for those who get things done, this safety shoe provides support in every situation and for every activity. The sole with uvex bionom X technology guarantees full support and flexibility, with an integrated flex zone in the forefoot area. The i-PUREnrj planet midsole ensures consistent energy return.

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

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uvex product highlight

uvex xact-fit planet

SwedSafe, part of the uvex group, has a very small carbon footprint. The power used to produce the uvex xact-fit planet comes entirely from renewable energies. SwedSafe is certified in accordance with the ISO 14001 environmental management standard.



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What exactly does our CO₂ calculation look like?

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.

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.

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.

Example:

For polyamide, depending on the source, you get between 2.8 kg CO₂e and 12.2 kg CO₂e per kg of material.

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.

* 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.



0.18 kg CO₂e

Calculation date:
05/2023*



Valve
95%
recycled ABS

Headband holder
100%
recycled PP

Total
26%
recycled material

uvex product highlight

uvex sil-Air classic 2310 planet

The entire range has been updated to include recycled plastic components. Thanks to its flexible nose clip and soft sealing lip, this product offers excellent wearer comfort and a secure fit.

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Presentation on the uvex website

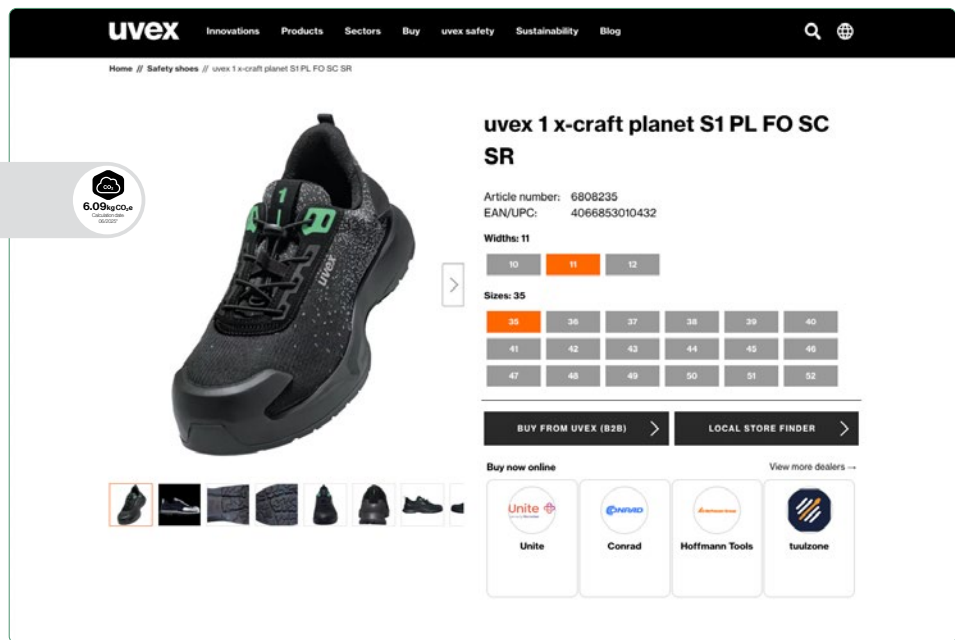
The presentation of the result on the website appears as follows. For support and more detailed data, the results data sheet mentioned can be used for communication with the customer.

6.09kg CO₂e

Calculation date:
06/2025*

Material	4.30
Production	0.97
Packaging	0.44
Transport	0.38

In total / kg CO₂e **6.09**



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 pair of uvex 1 x-craft planet (6.09 kg CO₂e/pair) save 1.11 kg CO₂e compared to a pair of uvex 1 x-craft, which emit 7.20 kg CO₂e. With 900 employees and a service life of 12 months, this corresponds to just about one ton of CO₂e per year – roughly the same as driving 5,000 km in a mid-range gasoline car!

uvex sustainability
More information



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UVEX ARBEITSSCHUTZ GMBH
Wuerzburger Str. 181-189
90766 Fuerth
GERMANY

T: +49 911 9736-0
F: +49 911 9736-1760
E: safety@uvex.de
I: uvex-safety.com



0.11 kg CO₂e
Calculation date:
02/2023*



Lens
100%
massbalanced** PC

Side arms
hard component
65%
recycled material

Side arms
soft component
47.7%
post consumer recycled
material (PCR)

uvex product highlight

uvex pheos nxt planet

An attractive classic-sporty design, pleasant lightness and optimum protection – the uvex pheos nxt combines all these features. The special construction of the temples is not only visually appealing: the directional structure ensures, for example, extremely good grip – even during demanding work.

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** Mass balancing is a bookkeeping method that is used to record and track the mass flows of plastics, for example, along the entire value creation chain. In the manufacturing process, some fossil-based raw material is replaced by more sustainable alternatives, for example biomass or recycled raw materials. The mass balancing approach enables manufacturers to verify the use of bio-based raw materials or recycled materials within a balance sheet period and to mathematically allocate the bio-based or recycled content to a proportion of the plastics produced. This results in a material with a significantly lower CO₂ footprint. However, the exact proportion of bio-based or recycled materials in the end product can no longer be precisely determined.