

CYCLE

De eerste stap
naar duurzaamheid



ZeroEx



ocs-bachmann.nl

Who is ZeroEx?

ZeroEx focuses on building solutions for the most pressing issue of our time: climate change. ZeroEx is a one-stop solution for carbon metrics and high-value carbon removal credits. We offer companies an open source CO² calculator to transparently quantify their emissions. Our carbon capture projects remove CO² from the atmosphere for the long term.

[Link: ZeroEx - CO² calculations and Carbon Capture](#)

Bachmann wishes to understand the climate impact of its product "Cycle" and has commissioned ZeroEx to calculate the product CO²e emissions. The accounting includes the cradle-to-gate approach according to the Greenhouse Gas Protocol.

This means that the life cycle phases of material acquisition and pre-processing as well as production are considered, i.e. the processes up to the completion of the products.

This also includes the transport of purchased goods, which is carried out during material acquisition, as well as the energy expenditures during production, broken down to the respective reference unit.

The product

Het CYCLE is a versatile power strip with a purist design language that combines style with functionality. CYCLE can be quickly and easily adapted to different applications thanks to exchangeable end caps:

- CYCLE Base is a classic socket strip; thanks to its feet, it rests securely and can be used flexibly
- CYCLE Desk is a permanently mounted desk socket. It is optimised for tables and desks
- CYCLE Loop is ideally suited for creative and open room concepts thanks to the carrying loop
- CYCLE Pole has a stable base and is a practical eye-catcher as a socket tower. Ideal for lounge areas, seating corners and the like

The aluminium profile and the packaging of the power strip are 100% recyclable. The plastics used in CYCLE are 45% based on maize and thus on a renewable raw material. This helps CYCLE to save CO². CYCLE also has halogen-free supply cables.*



Results

The product emissions for the cycle per reference unit add up to 2.386 kg CO²e. These include the emissions up to the completion of the product.

As a special product feature, the use of a bio-based plastic should be highlighted in order to replace petroleum-based plastics. By using more climate-friendly alternative materials, emissions can be avoided and overall emissions can be reduced.

Category	Total emissions	Emission factor (kg CO ₂ e)	Source
Material			
Biobased plastic	0.797	4.600	Hersteller PCF 2022
Plastic	0.025	2.940 - 6.700	Manufacturer specifications
Small electrical parts	0.204	1.902 - 5.648	BAFA 2021
Metal & non-metal	0.271	2.389 - 6.658	BAFA 2021
Cable	0.053	1.902	PVC , BAFA 2021
Paper/cardboard	0.054	0.624 - 1.377	BAFA 2021
	1.404 kg (59%)		

Transport	Total emissions	Emission factor (kg CO ₂ e)	Source
Truck	0.090	0.562	BEIS 2022
Sea freight	0.041	0.013	BEIS 2022
	0.131 kg (5%)		

Energy	Total emissions	Emission factor (kg CO ₂ e)	Source
Power	0.031	0.205	Manufacturer specifications '22
Stationary combustion	0.820	0.202	UBA 2022
	0.851 kg (36%)		



Methodology

ZeroEx uses the Product Life Cycle Accounting and Reporting Standard of the Greenhouse Gas Protocol to account for product emissions. It is an internationally recognized standard and builds on existing frameworks. The Product Life Cycle Accounting and Reporting Standard addresses the specifics of product accounting and provides companies with a guideline for accounting. In addition, it promotes consistency, comparability and transparency in the public reporting of product life cycle emissions.



In product accounting, emissions occur along the value chain in the various life cycle phases. The life cycle phases are divided into the following phases:

Cradle-to-gate

The product emissions that occur up to the production of the finished product are accounted for. This includes the phases of material acquisition & pre-processing and production.

Cradle-to-grave

All product life cycle phases are considered and the emissions are accounted for. Emissions during the use phase and end-of-life are also considered.

*The product information was provided by the manufacturer.

