Ahrend Balance SHE

Steel frame, 160x80 cm laminated chipboard top, electrically height adjustable

This product is designed following our circular design strategy derived from the Dutch NPR8313-2 guideline for Circular offices and learning environments. Our circular design strategy focuses on maximizing value of product lifecycles and minimizing raw material extraction.

Lifetime extension, reuse and recycling

We are committed to keep the environmental footprint of our products as low as possible.
With our Circular Hub we make sure that products keep in the cycle for as long as possible.
Together we will take care of a sustainable solution.

- Lifetime extension by repair, maintenance or refurbishment
- Take back for reuse
- Reuse parts and/or materials
- Recycling

Circular design

- Modular product design with standardised parts facilitates reuse and adaptability
- Product is designed for easy (dis)assembly with standardised tools
- Product (dis)assembly manual available

Certificates

- This product has low VOC emissions, ANSI BIFMA 7.1. e3 furniture sustainability test rapport available
- This product has an Environmental Product Declaration (EPD) according to ISO14025 and EN15804

43,8 kg	47,47 %	96,83 %
Weight	Recycled content*	Recyclability**

* Total percentage recycled content in product based on suppliers' data and market availability. The source of recycled content is both post-industrial and post-consumer.

** The recyclability percentage is the maximum percentage of the product that is recyclable, based on the availability of recycling facilities in the specified region.

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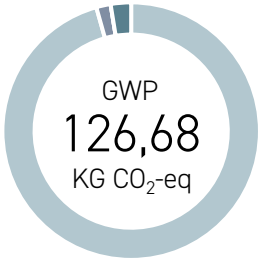

●	Raw materials, incl. extraction and processing	153,00	121%
●	Production, processing and assembly	2,89	2%
●	Distribution, user stage and maintenance	0,00	0%
●	End-of-life stage, waste-processing and disposal	4,10	3%
	Reuse, recovery, recycling potential	--33,30	--26%
	Total	**126,68**	**100%**

Materials	Weight (gr)	% of total	Resource
Steel unalloyed	23.436	53,47%	Virgin non-renewable and recycled content
Wood (chipboard) (50% PCR, 50% PIR)	13.395	30,56%	Recycled content
Aluminium	1.806	4,12%	Virgin non-renewable and recycled content
Motor	1.170	2,67%	Virgin non-renewable
Glue	992	2,26%	Virgin non-renewable
Steel low-alloyed	407	0,93%	Virgin non-renewable and recycled content
Acrylonitrile butadiene styrene	310	0,71%	Virgin non-renewable
Control unit	284	0,65%	Virgin non-renewable and recycled content
Cable	246	0,56%	Virgin non-renewable
Kraft paper	209	0,48%	Virgin non-renewable
Polyamid 6	198	0,45%	Virgin non-renewable
Polyester powder coating	188	0,43%	Virgin non-renewable
Switch and display	142	0,32%	Virgin non-renewable
Polyamid 6 (GF30%)	106	0,24%	Virgin non-renewable
Polyoxymethylene	24	0,05%	Virgin non-renewable
Polyethylene terephthalate (PET)	17	0,04%	Virgin non-renewable
Rubber	1	0,00%	Virgin non-renewable
Textile blanket packaging (100% PCR)	900	2,05%	Recycled content
Total	**43,831**	**100%**	

Manufactured in
The Netherlands

Production location
The Netherlands

Renewable energy assembly location
100%

Materials

Material composition
Ahrend selects its materials following strict criteria when it comes to responsible sourcing, material safety, longevity and the entire lifecycle of a material. Before we choose a material, we first look at material safety of a material, following the cradle-to-cradle philosophy that materials first have to be safe, in order to be circular. We look at minimum impact of material input, by choosing re-used materials over new, virgin materials. We select materials that have a lifespan of more than one economic lifecycle so that the material can be re-used multiple economic lifecycles.

Material safety
No substances listed on the REACH Candidate list of Substances of Very High Concern (SVHC) have been intentionally added to the homogeneous material or are a known contaminant in the homogeneous material.

Material selection
- All our lacquers are powder coated. Powder coating is a (more) sustainable method compared to other methods, that does release any harmful substances and 100% of the pure raw material is used.
- Our steel contains the average recycled content percentage of 35,5% globally according to EuRIC AISBL.
- All wood in this product is sourced from suppliers that are certified according to responsible deforestation programs.

Want to learn more?
Contact your account manager or visit www.ahrend.com

Procurement

When selecting our suppliers, we require our business partners to comply with the same ethical business behaviour with respect for labour-, human- and environmental rights. Ahrend maintains long-term relationships with many of its suppliers, some spanning several decades, which is a key advantage for the further development of products, technologies and materials.

Environmental Product Declaration

Ahrend conducted a life cycle assessment for this product to measure their environmental impacts. Alongside their carbon footprint, we also study other impacts such as resource depletion and water scarcity. This EPD can be found on the following pages.

Production and packaging

The packaging is made out of responsibly sourced plywood, and can be reused. In addition, a 100% recycled textile blanket is used, which also can be reused.

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Third party verified Environmental Product Declaration

According ISO 14025, EN 15804+A2 & NMD Assessment Method 1.1

Company information

Manufacturer:	Royal Ahrend
Production location:	Sint-Oedenrode
Address:	Kofferen 60, 5492 BP Sint-Oedenrode
E-mail:	info@ahrend.com
Website:	www.ahrend.com

EPD information

Product name:	Ahrend Balance desk - Ahrend Balance SHE Electrically adjustable height
Date of issue:	03-10-2024
End of validity:	03-10-2029
PCR:	ISO 14025 & EN 15804+A2 (+indicators A1)
LCA method:	NMD Assessment Method 1.1
LCA software:	Ecochain Mobius
Version database:	Ecoinvent v3.6 Cut-Off

Declaration from the verifier, Tim Mol 3-10-2024:
"the methodologies and data collection that are described in this report, comply with the requirements that are stated in "Environmental Performance Assessment Method for Construction Works" version 1.1, released in March 2022, and the standards that it is based on: ISO 14040, ISO 14044 and NEN-EN 15804.

Declared products

Ahrend Balance SHE, Electrically adjustable height

Scope of declaration

Functional unit:	One product (piece)
System boundaries:	Cradle-to-grave
Life cycle stages included:	

A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
x	x	x	x	x	x	x	x	x	x	MND	MND	x	x	x	x	x

(x = included, MND = module not declared)

Product information

Description of the product:
The Ahrend Balance Collection is a modular desk line that includes solo desks linked to workstations and meeting layouts. There are also options for home workspaces. The Ahrend Balance desks in this document are 160 cm (b) x 80 cm (d) and height adjustable 65 cm – 130 cm.

The Ahrend Balance SHE is an electrically adjustable height, ranging from 65 to 130 cm. This desk has a 100% recycled chipboard tabletop. Ahrend Balance SHE complies with ANSI/BIFMA X5.5-2014, EN-527-1:2011, EN 527-2:2016, NPR 1813:2016, NPR 1813/C1:2011 and ANSI/BIFMA X7.1. e3. Ahrend Balance is Cradle to Cradle Silver certified. The net weight of the Ahrend Balance SHE product plus packaging is 43,831 kg. Whereas the materials have a higher weight in the product, namely 42,931 kg. The textile blanket for packaging has a weight of 0,9 kg. Lifetime of a Balance desk is 10 years.

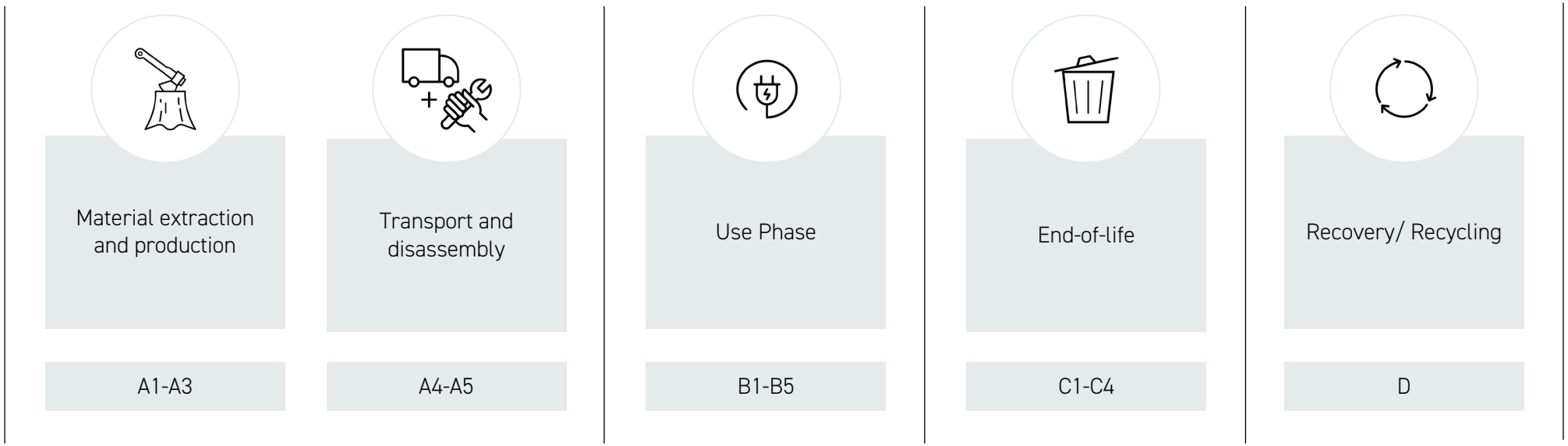
Description of manufacturing process:
Materials and parts are delivered at Ahrend production facilities in Sint-Oedenrode. Parts are assembled to end product.

Processes that are taking place in the Ahrend production facility in Sint-Oedenrode include:

- Welding of steel
- Powder coating of steel
- Final product assembly with manual tooling

Description of packaging materials:
The product is packaged in a 100% recycled textile blanket and a EURO pallet.

Process boundary



Ahrend Balance SHE

Results of the environmental performance indicators (LCA results) of one functional unit (one Ahrend Balance SHE)

[Ahrend Balance SHE] Impact category	Reference unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D	Total
ECI single score	euro	2,65E+01	1,14E-01	1,15E-01	0,00E+00	0,00E+00	4,53E-02	7,30E-01	1,21E-02	-4,52E+00	2,30E+01
[Set 1] Abiotic depletion, fuel (ADPF)	kg Sb eq	1,11E+00	6,95E-03	8,11E-04	0,00E+00	0,00E+00	2,76E-03	5,57E-03	9,60E-05	-2,09E-01	9,16E-01
[Set 1] Abiotic depletion, non-fuel (ADPE)	kg Sb eq	8,19E-03	2,47E-05	2,54E-06	0,00E+00	0,00E+00	9,79E-06	3,85E-05	5,65E-08	1,39E-03	9,65E-03
[Set 1] Acidification (AP)	kg SO2 eq	7,68E-01	4,07E-03	6,95E-04	0,00E+00	0,00E+00	1,62E-03	9,72E-03	8,19E-05	-1,33E-01	6,52E-01
[Set 1] Ecotoxicity, fresh water (FAETP)	kg 1,4-DB eq	2,52E+00	1,19E-02	8,09E-03	0,00E+00	0,00E+00	4,70E-03	5,36E-02	5,74E-04	1,39E-01	2,74E+00
[Set 1] Ecotoxicity, marine water (MAETP)	kg 1,4-DB eq	8,64E+03	4,24E+01	2,20E+01	0,00E+00	0,00E+00	1,68E+01	1,21E+02	8,73E-01	-1,93E+02	8,65E+03
[Set 1] Ecotoxicity, terrestric (TETP)	kg 1,4-DB eq	1,15E+00	1,43E-03	3,23E-04	0,00E+00	0,00E+00	5,69E-04	3,50E-03	1,99E-05	1,34E+00	2,49E+00
[Set 1] Eutrophication (EP)	kg PO4- eq	9,92E-02	8,13E-04	1,19E-04	0,00E+00	0,00E+00	3,23E-04	1,72E-03	4,42E-05	-1,59E-02	8,63E-02
[Set 1] Global warming (GWP)	kg CO2 eq	1,53E+02	9,47E-01	1,94E+00	0,00E+00	0,00E+00	3,75E-01	3,51E+00	2,10E-01	-3,33E+01	1,27E+02
[Set 1] Human toxicity (HT)	kg 1,4-DB eq	1,49E+02	4,05E-01	1,29E-01	0,00E+00	0,00E+00	1,61E-01	5,37E+00	7,27E-03	-2,32E+01	1,32E+02
[Set 1] Ozone layer depletion (ODP)	kg CFC-11 eq	1,18E-05	1,76E-07	6,05E-08	0,00E+00	0,00E+00	6,96E-08	1,18E-07	2,17E-09	-1,31E-06	1,10E-05
[Set 1] Photochemical oxidation (POCP)	kg C2H4 eq	1,40E-01	5,68E-04	7,15E-05	0,00E+00	0,00E+00	2,25E-04	1,14E-03	5,25E-05	-6,02E-02	8,21E-02
[Set 2] Acidification (AP)	mol H+ eq	9,29E-01	5,44E-03	8,94E-04	0,00E+00	0,00E+00	2,16E-03	1,28E-02	1,11E-04	-1,63E-01	7,87E-01
[Set 2] Climate change – Biogenic (GWP-b)	kg CO2 eq	-2,03E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,83E+01	2,24E+00	0,00E+00	2,02E-01
[Set 2] Climate change – Fossil (GWP-f)	kg CO2 eq	1,56E+02	9,54E-01	1,95E+00	0,00E+00	0,00E+00	3,78E-01	3,52E+00	3,12E-02	-3,54E+01	1,27E+02
[Set 2] Climate change – Land use and LU change (GWP-luluc)	kg CO2 eq	1,74E-01	3,38E-04	1,51E-04	0,00E+00	0,00E+00	1,34E-04	8,95E-04	3,75E-06	-8,45E-03	1,67E-01
[Set 2] Climate change (GWP-total)	kg CO2 eq	1,36E+02	9,54E-01	1,95E+00	0,00E+00	0,00E+00	3,79E-01	2,18E+01	2,27E+00	-3,54E+01	1,28E+02

Ahrend Balance SHE

Results of the environmental performance indicators (LCA results) of one functional unit (one Ahrend Balance SHE)

[Ahrend Balance SHE] Impact category	Reference unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D	Total
[Set 2] Ecotoxicity, freshwater (ETF)	CTUe	6,27E+03	1,19E+01	2,44E+01	0,00E+00	0,00E+00	4,72E+00	5,93E+01	3,39E+01	-1,23E+03	5,17E+03
[Set 2] Eutrophication, freshwater (EP-fw)	kg P eq	9,28E-03	7,85E-06	5,63E-06	0,00E+00	0,00E+00	3,11E-06	5,07E-05	2,92E-07	-1,24E-03	8,11E-03
[Set 2] Eutrophication, marine (EP-m)	kg N eq	1,64E-01	1,94E-03	2,58E-04	0,00E+00	0,00E+00	7,71E-04	3,98E-03	8,67E-05	-2,99E-02	1,41E-01
[Set 2] Eutrophication, terrestrial (EP-t)	mol N eq	1,70E+00	2,14E-02	2,79E-03	0,00E+00	0,00E+00	8,50E-03	4,55E-02	4,74E-04	-3,61E-01	1,42E+00
[Set 2] Human toxicity, cancer (HTC)	CTUh	4,78E-07	4,23E-10	3,56E-10	0,00E+00	0,00E+00	1,68E-10	5,39E-08	6,12E-12	-1,47E-08	5,18E-07
[Set 2] Human toxicity, non-cancer (HTNC)	CTUh	9,12E-06	1,42E-08	7,61E-09	0,00E+00	0,00E+00	5,62E-09	9,95E-08	5,11E-10	5,12E-06	1,44E-05
[Set 2] Ionising radiation (IR)	kBq U-235 eq	6,28E+00	6,40E-02	6,49E-03	0,00E+00	0,00E+00	2,54E-02	5,22E-02	7,95E-04	3,68E-01	6,80E+00
[Set 2] Land use (SQP)	Pt	9,22E+02	1,25E+01	7,37E-01	0,00E+00	0,00E+00	4,97E+00	2,47E+01	5,96E-01	-5,08E+02	4,57E+02
[Set 2] Ozone depletion (ODP)	kg CFC11 eq	1,24E-05	2,20E-07	6,07E-08	0,00E+00	0,00E+00	8,72E-08	1,33E-07	2,71E-09	-1,13E-06	1,17E-05
[Set 2] Particulate matter (PM)	disease inc.	9,17E-06	8,61E-08	7,38E-09	0,00E+00	0,00E+00	3,42E-08	1,36E-07	2,54E-09	-2,27E-06	7,16E-06
[Set 2] Photochemical ozone formation (POCP)	kg NMVOC eq	5,92E-01	6,13E-03	7,50E-04	0,00E+00	0,00E+00	2,43E-03	1,21E-02	2,03E-04	-1,89E-01	4,25E-01
[Set 2] Resource use, fossils (ADP-f)	MJ	2,08E+03	1,46E+01	1,53E+00	0,00E+00	0,00E+00	5,81E+00	1,15E+01	1,97E-01	-2,73E+02	1,84E+03
[Set 2] Resource use, minerals, and metals (ADP-mm)	kg Sb eq	8,19E-03	2,47E-05	2,54E-06	0,00E+00	0,00E+00	9,79E-06	3,85E-05	5,65E-08	1,39E-03	9,65E-03
[Set 2] Water use (WDP)	m3 depriv.	4,26E+01	4,49E-02	9,73E-02	0,00E+00	0,00E+00	1,78E-02	2,00E-01	4,19E-03	-5,96E+00	3,70E+01
Components for re-use (CRU)	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Energy, primary, non-renewable (PENRT)	MJ	2,22E+03	1,55E+01	1,62E+00	0,00E+00	0,00E+00	6,17E+00	1,22E+01	2,09E-01	-2,86E+02	1,97E+03
Energy, primary, non-renewable, excluding materials (PENRE)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

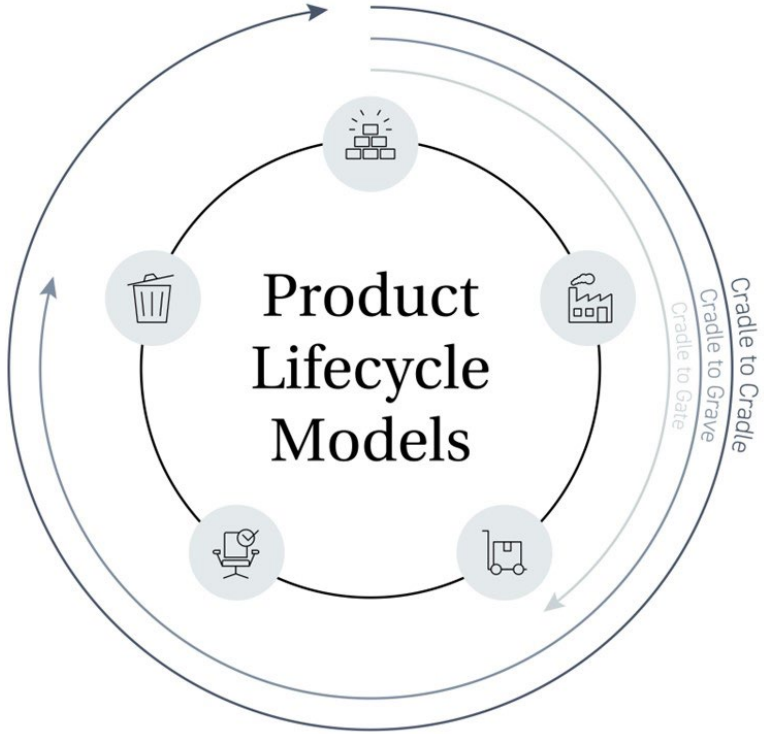
Ahrend Balance SHE

Results of the environmental performance indicators (LCA results) of one functional unit (one Ahrend Balance SHE)

[Ahrend Balance SHE] Impact category	Reference unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D	Total
Energy, primary, non-renewable, materials (PENRM)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Energy, primary, renewable (PERT)	MJ	3,12E+02	2,10E-01	1,46E-01	0,00E+00	0,00E+00	8,33E-02	1,57E+00	3,31E-03	-9,35E+01	2,20E+02
Energy, primary, renewable, excluding materials (PERE)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Energy, primary, renewable, materials (PERM)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Energy, primary, total (PET)	MJ	2,53E+03	1,58E+01	1,77E+00	0,00E+00	0,00E+00	6,25E+00	1,37E+01	2,12E-01	-3,80E+02	2,19E+03
Exported energy, electric (EEE)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal (EET)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for energy recovery (MER)	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling (MFR)	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Secondary fuel, non-renewable (NRSF)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Secondary fuel, renewable (RSF)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Secondary material (SM)	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Waste, hazardous (HWD)	kg	2,10E-02	3,75E-05	3,06E-06	0,00E+00	0,00E+00	1,49E-05	3,73E-05	3,93E-07	-4,41E-04	2,06E-02
Waste, non-hazardous (NHWD)	kg	2,82E+01	9,08E-01	2,19E-01	0,00E+00	0,00E+00	3,60E-01	4,24E-01	4,54E-01	-4,14E+00	2,64E+01
Waste, radioactive (RWD)	kg	6,13E-03	9,96E-05	6,08E-06	0,00E+00	0,00E+00	3,95E-05	6,00E-05	1,22E-06	3,38E-05	6,37E-03
Water, freshwater use (FW)	m3	1,40E+00	1,66E-03	2,86E-03	0,00E+00	0,00E+00	6,57E-04	1,30E-02	1,07E-04	-1,39E-01	1,28E+00

Additional technical information

Modules A1 to A3 cover the material extraction and production, beginning with A1 focusing on the extraction of raw materials for the Ahrend Balance SHE and the transport plus packaging of these raw materials. In module A2 the transportation from the material suppliers to the production site of Ahrend in Sint-Oedenrode is calculated. The energy consumption of the production site is considered in Module A3. Furthermore, the production waste is taking into account in this module. Steel has a production waste of 7,8%. In addition, as a worst-case scenario, 1% production waste for every material is accounted. For the end-of-life treatment percentages and transport distances, the standard values from the NMD Assessment Method are considered. Modules A4 and A5 are part of the transport and disassembly. A4 addresses the transport from the production site to the customers. According to the NMD Assessment Method, a standard value of 150 km is taking into account. The impact of the disposal of the packaging is accounted for in Module A5. For the end-of-life treatment percentages and transport distances to end-of-life treatment the standard values of NMD are considered. The use phase is calculated in Module B. In the case of the desk there is no use phase which means it is zero. C1 until C4 are calculated in the End-of-Life. After their useful life the materials are disassembled manually. This means there is zero impact in C1 for the demolition. Thereafter, the materials are transported (C2) to waste processing to be processed (C3-C4). The transport distance and waste treatment values are calculated according to the NMD Assessment Method. Module D is the last module, which are the benefits and burdens for recovery and recycling. The steps of the NMD Assessment Method are followed to calculate the impact.



Disclaimer

This LCA is calculated according to the Cradle-to-Grave model. From the moment a product leaves the factory (cradle) to the end of its life cycle, in which the use phase and waste phase; namely when the waste is or is being removed, are taken into account. (grave). Please be aware that EPDs of competitors within the same product category calculated with a Cradle-to-Gate model or with different methods may not be comparable.

References

ISO 14040
DIN EN ISO 14040:2006-10, Environmental management - Life cycle assessment - Principles and framework; EN ISO 14040:2006

ISO 14044
DIN EN ISO 14044:2006-10, Environmental management - Life cycle assessment - Requirements and guidelines; EN ISO 14040:2006

ISO 14025
DIN EN ISO 14025:2011-10: Environmental labels and declarations — Type III environmental declarations — Principles and procedures

EN 15804+A2
NEN-EN 15804:2012+A2:2019: Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products

NMD-assessment method 1.1
'Environmental Performance Assessment Method for Construction Works', Stichting National Environmental Database, versie 1.1, maart 2022.

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Vitalising Workspaces