Environmental Product Declaration

In accordance with ISO 14025 and EN 15804:2012+A2:2019 for:

ST9 Ei30 RW40 RC2 with glass; ST11 Ei30 RW43 RC3 with glass; ST11 Ei30 RW40 RC3 with glass

from

Dieden-Ekodoor AB

Programme:	The International EPD® System, www.environdec.com
Programme operator:	EPD International AB
EPD registration number:	S-P-07008
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An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com

General information

Programme information

Programme:	The International EPD® System
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
Website:	www.environdec.com
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Accountabilities for PCR, LCA and independent, third-party verification
Product Category Rules (PCR): Construction Products PCR 2019:14 version 1.11 Windows and doors (EN 17213:2020) C-PCR-007 version 2020_04-09 316 UN CPC code 316 Builders' joinery and carpentry of wood
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
PCR review was conducted by: *The Technical Committee of the International EPD@ System.*
Life Cycle Assessment (LCA)
LCA accountability: *Nadeen Hassan, EANDO AB*
Third-party verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: ☐ EPD verification by individual verifier Third-party verifier: Vladimír Kočí, LCA Studio, Czech Republic Approved by: The International EPD® System
Procedure for follow-up of data during EPD validity involves third party verifier: ☐ Yes ☒ No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but from different programmes may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804. For further information about comparability, see EN 15804 and ISO 14025.

Company information

Owner of the EPD: Dieden-Ekodoor AB

Contact: Jennie Thygeholm

Description of the organisation:
Dieden-Ekodoor AB produces a wide range of high-quality exterior doors and garage doors. Through contracts with other suppliers, they also provide other related products. Their customers include retailers, construction contractors and house factories in Northern Europe, mainly Sweden. By manufacturing in Sweden and with equipment that can be quickly adjusted, Dieden-Ekodoor AB can manufacture doors and gates according to the customer's wishes.
They also use local suppliers as much as possible, as well as working closely with a small number of suppliers.

Product-related or management system-related certifications:
The production facility of Dieden-Ekodoor AB is certified according to ISO 9001- and 14001:2015.

Name and location of production site(s):
Dieden-Ekodoor AB - Broby, Sweden

Product information

Product name:
ST9 Ei30 RW40 RC2 with glass
ST11 Ei30 RW43 RC3 with glass
ST11 Ei30 RW40 RC3 with glass

Product identification:
ST9 Ei30 RW40 RC2 with glass
ST11 Ei30 RW43 RC3 with glass
ST11 Ei30 RW40 RC3 with glass

Product description:
ST9 - Standard apartment entrance door with the following dimensions: 100 cm x 210cm.
ST11 - Safety apartment entrance door with the following dimensions: 100 cm x 210cm.
All exterior doors are CE marked. The basis for the CE marking is tests performed by RISE.

UN CPC code:
316 Builders' joinery and carpentry of wood

Geographical scope:
Europe

LCA information

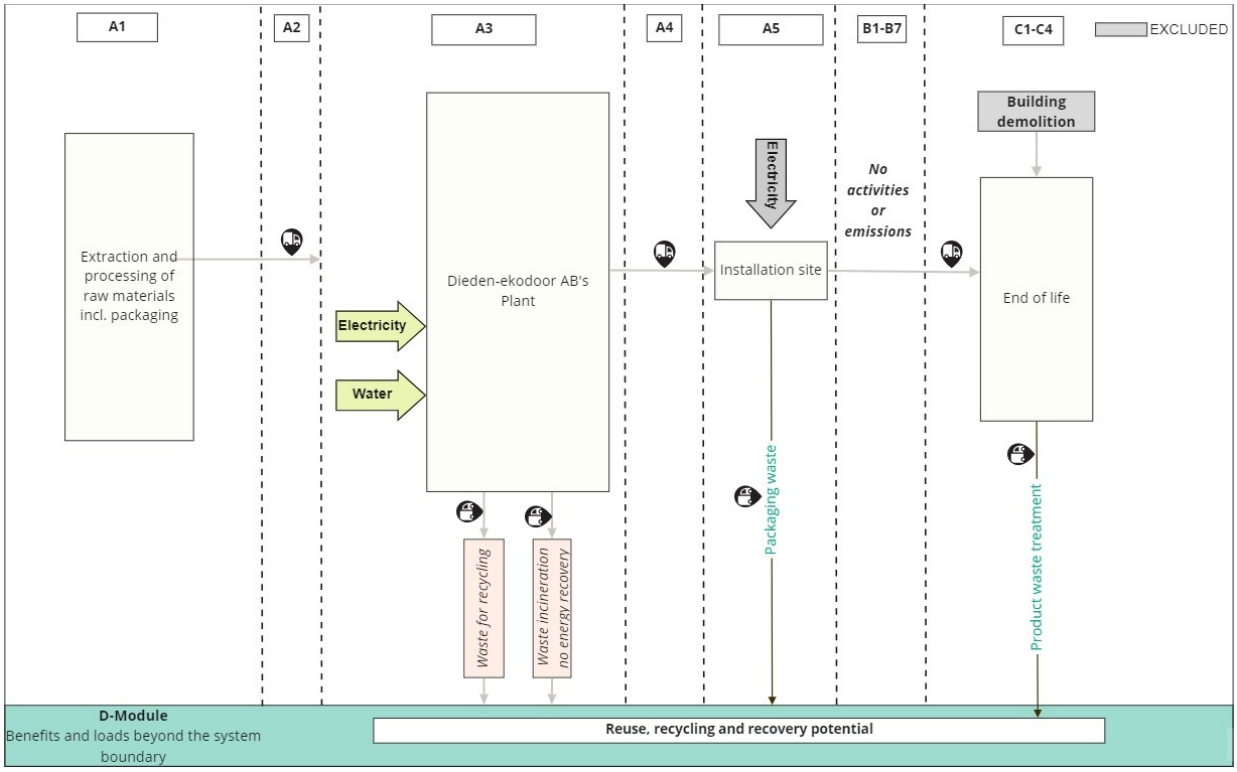
Functional unit / declared unit:
1 m^2 of door

Reference service life:
30 years

Time representativeness:
The data represents the year 2021

Database(s) and LCA software used:
Software: GaBi v10.6. Databases were from GaBi LCA software v10.6 and Ecoinvent v3.8
Description of system boundaries:
Construction service EPD: Cradle to grave.

System diagram:



More information:
Specific data regarding the composition of the doors is used based on data from Dieden-Ekodoor. This also includes production data from Dieden-Ekodoor's factory.
Transportation is based on data from Sphera. Other material and data for different types of energy are based on Sphera. Energy data is calculated as an average from actual consumption. Relevant assumptions based on EN 17213: 2020 are made regarding the end-of-life scenario of the doors.

A1, Raw material supply

This module considers the extraction and processing of all raw materials, energy, and transportation which occur upstream to the studied manufacturing process, including packaging material.

A2, transport to the manufacturer

The raw materials are transported to the manufacturing site. This also includes additives and packaging material.

A3, manufacturing
This module includes the manufacturing of the doors. Electricity mix with a certificate of origin is used at this stage.

A4, Transport
Transportation from Dieden-Ekodoor AB's plant to the building site is taken into account.

A5, Construction installation
This stage includes any resources used during the installation of the product on the construction site. In this case it is assumed that all doors are manually installed and so no emissions are included. Treatment of the packaging waste on-site is considered.

B1-B7 Use stage
Activities at this stage is assumed to have negligible impact.

C1 Deconstruction/Demolition
This stage includes the de-construction and/or demolition of the building. This is not relevant as the products included in this study are not used in the construction process.

C2 Transport
This stage represents the transport distance to the waste processing facility.

C3 Waste processing
This stage includes any waste treatment needed.

C4 Final disposal
This includes any material that is landfilled.

D Benefits and loads beyond the system boundary
Emission credits obtained from energy recovery and/or recycling materials.

Cut-off criteria:
All input and output flows in a unit process were considered i.e., taking into account the value of all flows in the unit process and the corresponding LCI where data was available. Data gaps were filled by conservative assumptions with average or generic data. Any assumptions in such case were documented. The use of cut-off criterion on mass inputs and primary energy at the unit process level (1%) and at the information module level (5%).

LCA: Scenarios and additional technical information

TRANSPORT FROM THE PRODUCTION PLACE TO THE USER (A4)

Transportation model

Type	Capacity utilisation (incl. return) %	Type of vehicle	Distance (km)	Fuel/Energy consumption	value (l/t)
Truck	85 %	Average truck trailer with a 27 t payload	350	0,014 l/tkm	1,95

Fuel type used

Fuel type	Database	Regional coverage	Time reference
EU 28: Diesel mix (6,35% bio-content)	Sphera	EU	2017

ASSEMBLY (A5)

The following waste treatment rates are taken into account for waste packaging on-site.

Packaging material	Recycling rate	Incineration rate
Plastic[1]	60 %	40 %

1. *Source: Plastic packaging - Swedish Waste Management Association, Swedish EPA 2021*

Transportation distance of 50 km to the waste facility is considered.

END OF LIFE (C2-C4)

Transport distance to waste processing (C2)

Type	Capacity utilisation %	Type of vehicle	Distance	Fuel/Energy consumption	value (l/t)
Truck	85 %	Average truck trailer with a 27 t payload	50 km	0,014 l/tkm	1,95

Waste treatment and disposal rates (C3-C4)

Material	Recycling rate	Incineration rate	Landfill rate
Wood	5 %	95 %	0 %
Metal	100 %	0 %	0 %
Glass	30 %	70 %	0 %
Plastic	0 %	95 %	5 %
Mineral wool	0 %	0 %	100 %

The waste treatment rates are based on default values for the end-of-life scenario provided in the standard EN17213:2020. The standard did not specify a waste treatment type for mineral wool and, therefore, a conservative approach has been followed to assume that the mineral wool is fully landfilled.

CONVERSION FACTOR

Conversion factor	m^2	door
	1	2,1

% DIFFERENCE IN GWP -GHG*

Product	ST9 Ei30 RW40 RC2 with glass	ST11 Ei30 RW43 RC3 with glass
GWP-GHG difference % (A1-A3)	3,6 %	0 %

*In relation to *ST11 Ei30 RW40 RC3 with glass* (Product with the highest impact)

Modules declared, geographical scope, share of specific data (in GWP-GHG indicator) and data variation:

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Module	**A1**	**A2**	**A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
Modules declared	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Geography	EU	EU	SE	EU	SE	-	-	-	-	-	-	-	EU	EU	EU	EU	
Specific data used	Specific data used in module A3					-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	0-10%					-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	Not applicable					-	-	-	-	-	-	-	-	-	-	-	-

Content information

Product components	ST9 Ei30 RW40 RC2 with glass	ST11 Ei30 RW43 RC3 with glass	ST11 Ei30 RW40 RC3 with glass
	Weight (kg / declared unit)		
Pine	13,33	13,33	13,33
Wood glue	0,48	0,48	0,48
HDF	12,95	12,95	12,95
Insulation - Polyester	0,00	0,00	0,00
Alu	2,24	2,24	2,24
Beech	0,48	0,48	0,48
Paint	0,95	0,95	0,95
Silicone	0,36	0,36	0,36
Galvanized steel	2,00	2,48	2,48
Glass glue	0,05	0,05	0,05
Glass	13,00	13,00	13,00
Mineral wool	0,00	0,00	0,00
Silicone rubber	0,11	0,11	0,11
Wood insulation	11,90	11,90	11,90
Total	**57,85**	**58,33**	**58,33**

Packaging materials	Weight, kg	Weight-% (versus the product)
EPS	0,190	0,5
Stretch film	0,214	0,53
TOTAL	**0,404**	**1,03**

During the life cycle of the product no hazardous substance listed in the “Candidate List of Substances of Very High Concern (SVHC) for authorization” has been used in a percentage higher than 0,1% of the weight of the product.

Environmental Information

ST9 EI30 RW40 RC2 WITH GLASS

Potential environmental impact – mandatory indicators according to EN 15804

Results per functional or declared unit													
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-fossil	kg CO_2 eq.	4,9E+01	7,1E-01	7,8E+00	5,7E+01	1,2E+00	1,2E-03	0,0E+00	0,0E+00	1,3E-01	2,1E+00	1,8E-01	-3,5E+01
GWP-biogenic	kg CO_2 eq.	-1,3E+00	-9,4E-04	1,9E-02	-1,3E+00	-1,7E-03	1,4E-03	0,0E+00	0,0E+00	-1,8E-04	6,5E+01	9,6E-01	-1,1E-01
GWP-luluc	kg CO_2 eq.	3,4E-02	3,8E-03	1,8E-03	4,0E-02	6,7E-03	1,4E-07	0,0E+00	0,0E+00	7,3E-04	1,4E-04	8,2E-05	-8,5E-03
GWP-total	kg CO_2 eq.	4,8E+01	7,1E-01	7,8E+00	5,6E+01	1,2E+00	2,7E-03	0,0E+00	0,0E+00	1,3E-01	6,7E+01	1,1E+00	-3,5E+01
ODP	kg CFC 11 eq.	3,1E-07	4,3E-14	8,1E-07	1,1E-06	7,2E-14	5,1E-16	0,0E+00	0,0E+00	7,8E-15	5,1E-12	-2,4E-13	-1,8E-10
AP	mol H^+ eq.	2,9E-01	2,1E-03	1,1E-02	3,0E-01	2,3E-03	1,5E-06	0,0E+00	0,0E+00	2,4E-04	9,4E-03	5,1E-04	-1,2E-01
EP-freshwater	kg PO_4^{3-} eq.	1,4E-03	2,1E-06	1,7E-03	3,1E-03	3,6E-06	3,5E-10	0,0E+00	0,0E+00	3,9E-07	1,2E-06	2,1E-05	-4,4E-05
EP-marine	kg N eq.	6,0E-02	7,4E-04	2,3E-03	6,3E-02	9,4E-04	5,7E-07	0,0E+00	0,0E+00	1,0E-04	3,1E-03	3,0E-04	-1,7E-02
EP-terrestrial	mol N eq.	6,6E-01	8,3E-03	2,3E-02	6,9E-01	1,1E-02	7,2E-06	0,0E+00	0,0E+00	1,2E-03	4,5E-02	1,6E-03	-1,9E-01
POCP	kg NMVOC eq.	1,8E-01	1,7E-03	6,3E-03	1,8E-01	2,0E-03	1,5E-06	0,0E+00	0,0E+00	2,2E-04	8,4E-03	7,6E-04	-5,1E-02
ADP-minerals&metals*	kg Sb eq.	1,0E-04	5,8E-08	1,3E-05	1,2E-04	1,0E-07	1,5E-11	0,0E+00	0,0E+00	1,1E-08	1,3E-07	2,3E-09	-4,3E-04
ADP-fossil*	MJ	6,7E+02	9,4E+00	3,8E+01	7,2E+02	1,6E+01	1,7E-03	0,0E+00	0,0E+00	1,7E+00	1,4E+01	1,6E+00	-5,5E+02
WDP	m^3	1,2E+01	6,2E-03	5,3E+00	1,7E+01	1,1E-02	4,4E-04	0,0E+00	0,0E+00	1,2E-03	6,9E+00	-4,1E-03	-5,4E+00
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption												

** Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.*

Potential environmental impact – additional mandatory and voluntary indicators

Results per functional or declared unit													
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-GHG[1]	kg CO_2 eq.	2,4E+01	7,0E-01	7,7E+00	3,2E+01	1,2E+00	2,7E-03	0,0E+00	0,0E+00	1,3E-01	6,7E+01	8,6E-01	-3,5E+01

Use of resources

Results per functional or declared unit													
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	1,8E+02	5,2E-01	1,0E+02	2,8E+02	9,2E-01	3,2E-04	0,0E+00	0,0E+00	9,9E-02	3,3E+00	-1,3E-01	-1,3E+02
PERM	MJ	2,6E+02	0,0E+00	0,0E+00	2,6E+02	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
PERT	MJ	4,4E+02	5,2E-01	1,0E+02	5,4E+02	9,2E-01	3,2E-04	0,0E+00	0,0E+00	9,9E-02	3,3E+00	-1,3E-01	-1,3E+02
PENRE	MJ	6,6E+02	9,4E+00	3,8E+01	7,1E+02	1,6E+01	1,7E-03	0,0E+00	0,0E+00	1,7E+00	1,4E+01	1,6E+00	-5,5E+02
PENRM	MJ.	1,1E+01	0,0E+00	0,0E+00	1,1E+01	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
PENRT	MJ	6,7E+02	9,4E+00	3,8E+01	7,2E+02	1,6E+01	1,7E-03	0,0E+00	0,0E+00	1,7E+00	1,4E+01	1,6E+00	-5,5E+02
SM	kg	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
RSF	MJ	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
NRSF	MJ	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
FW	m^3	5,1E-01	5,9E-04	3,4E-01	8,5E-01	1,0E-03	1,0E-05	0,0E+00	0,0E+00	1,1E-04	1,6E-01	-1,6E-04	-1,9E-01
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water												

[1] The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Waste production and output flows

Waste production

Results per functional or declared unit													
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste disposed	kg	6,4E-08	4,5E-11	3,8E-01	3,8E-01	7,7E-11	1,4E-13	0,0E+00	0,0E+00	8,3E-12	1,4E-09	2,7E-10	-6,1E-08
Non-hazardous waste disposed	kg	7,6E+00	1,3E-03	2,6E-02	7,6E+00	2,3E-03	1,4E-04	0,0E+00	0,0E+00	2,5E-04	5,8E-01	2,8E+00	-1,6E+00
Radioactive waste disposed	kg	2,5E-02	1,2E-05	1,3E-04	2,5E-02	2,0E-05	7,0E-08	0,0E+00	0,0E+00	2,2E-06	8,2E-04	-6,1E-05	-3,5E-02

Output flows

Results per functional or declared unit													
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
Components for re-use	kg	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
Material for recycling	kg	0,0E+00	0,0E+00	1,2E+01	1,2E+01	0,0E+00	8,4E-03	0,0E+00	0,0E+00	0,0E+00	1,3E+01	0,0E+00	0,0E+00
Materials for energy recovery	kg	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	3,7E+01	0,0E+00	0,0E+00
Exported energy, electricity	MJ	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
Exported energy, thermal	MJ	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00

Additional environmental indicators

Results per functional or declared unit												
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
PM	Disease incidence	5,3E-06	2,0E-08	9,6E-08	5,4E-06	1,3E-08	1,0E-11	0,0E+00	0,0E+00	1,4E-09	4,7E-08	5,4E-09	-1,6E-06
IRP	kBq U235 eq.	5,0E+00	1,7E-03	2,3E-01	5,2E+00	2,9E-03	1,1E-05	0,0E+00	0,0E+00	3,1E-04	1,3E-01	-1,1E-02	-5,8E+00
ETP-fw1	CTUe	6,7E+02	6,4E+00	1,2E+02	8,0E+02	1,1E+01	9,7E-04	0,0E+00	0,0E+00	1,2E+00	6,3E+00	1,3E+00	-1,5E+02
HTP-c1	CTUh	3,8E-08	1,3E-10	8,4E-09	4,7E-08	2,3E-10	6,4E-14	0,0E+00	0,0E+00	2,4E-11	4,3E-10	8,3E-11	-5,8E-06
HTP-nc1	CTUh	2,1E-06	7,0E-09	5,3E-08	2,1E-06	1,2E-08	9,1E-12	0,0E+00	0,0E+00	1,3E-09	1,6E-08	8,6E-09	-3,3E-07
SQP1	Dimension less	4,3E+03	3,2E+00	7,4E+00	4,3E+03	5,6E+00	4,6E-04	0,0E+00	0,0E+00	6,0E-01	4,1E+00	-3,0E-02	-9,0E+01

Information on biogenic carbon content

Results per functional or declared unit		
BIOGENIC CARBON CONTENT	**Unit**	**QUANTITY**
Biogenic carbon content in product	kg C	6,14E+00
Biogenic carbon content in packaging	kg C	0,00E+00

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO_2.

ST11 EI30 RW43 RC3 WITH GLASS

Potential environmental impact – mandatory indicators according to EN 15804

Results per functional or declared unit													
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-fossil	kg CO_2 eq.	5,0E+01	7,1E-01	7,8E+00	5,8E+01	1,2E+00	1,2E-03	0,0E+00	0,0E+00	1,3E-01	2,1E+00	1,8E-01	-3,5E+01
GWP-biogenic	kg CO_2 eq.	-1,3E+00	-9,5E-04	1,9E-02	-1,3E+00	-1,7E-03	1,4E-03	0,0E+00	0,0E+00	-1,8E-04	6,5E+01	9,6E-01	-1,1E-01
GWP-luluc	kg CO_2 eq.	3,4E-02	3,8E-03	1,8E-03	4,0E-02	6,8E-03	1,4E-07	0,0E+00	0,0E+00	7,3E-04	1,4E-04	8,2E-05	-8,5E-03
GWP-total	kg CO_2 eq.	4,9E+01	7,2E-01	7,8E+00	5,7E+01	1,2E+00	2,6E-03	0,0E+00	0,0E+00	1,3E-01	6,7E+01	1,1E+00	-3,5E+01
ODP	kg CFC 11 eq.	3,1E-07	4,3E-14	8,2E-07	1,1E-06	7,3E-14	5,1E-16	0,0E+00	0,0E+00	7,8E-15	5,1E-12	-2,4E-13	-1,8E-10
AP	mol H^+ eq.	2,9E-01	2,1E-03	1,1E-02	3,1E-01	2,3E-03	1,5E-06	0,0E+00	0,0E+00	2,4E-04	9,4E-03	5,1E-04	-1,2E-01
EP-freshwater	kg PO_4^{3-} eq.	1,4E-03	2,1E-06	1,7E-03	3,2E-03	3,6E-06	3,4E-10	0,0E+00	0,0E+00	3,9E-07	1,2E-06	2,1E-05	-4,4E-05
EP-marine	kg N eq.	6,1E-02	7,4E-04	2,3E-03	6,4E-02	9,5E-04	5,7E-07	0,0E+00	0,0E+00	1,0E-04	3,1E-03	3,0E-04	-1,7E-02
EP-terrestrial	mol N eq.	6,7E-01	8,3E-03	2,3E-02	7,0E-01	1,1E-02	7,1E-06	0,0E+00	0,0E+00	1,2E-03	4,5E-02	1,6E-03	-1,9E-01
POCP	kg NMVOC eq.	1,8E-01	1,7E-03	6,3E-03	1,9E-01	2,1E-03	1,5E-06	0,0E+00	0,0E+00	2,2E-04	8,4E-03	7,6E-04	-5,1E-02
ADP-minerals&metals*	kg Sb eq.	1,1E-04	5,9E-08	1,3E-05	1,2E-04	1,0E-07	1,4E-11	0,0E+00	0,0E+00	1,1E-08	1,3E-07	2,3E-09	-4,3E-04
ADP-fossil*	MJ	6,8E+02	9,5E+00	3,8E+01	7,3E+02	1,6E+01	1,7E-03	0,0E+00	0,0E+00	1,7E+00	1,4E+01	1,6E+00	-5,5E+02
WDP	m^3	1,2E+01	6,2E-03	5,3E+00	1,8E+01	1,1E-02	4,4E-04	0,0E+00	0,0E+00	1,2E-03	6,9E+00	-4,1E-03	-5,4E+00
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption												

** Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.*

Potential environmental impact – additional mandatory and voluntary indicators

Results per functional or declared unit													
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-GHG[2]	kg CO_2 eq.	2,5E+01	7,0E-01	7,8E+00	3,3E+01	1,2E+00	2,6E-03	0,0E+00	0,0E+00	1,3E-01	6,7E+01	8,6E-01	-3,5E+01

Use of resources

Results per functional or declared unit													
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	1,9E+02	5,2E-01	1,0E+02	2,9E+02	9,2E-01	3,2E-04	0,0E+00	0,0E+00	9,9E-02	3,3E+00	-1,3E-01	-1,3E+02
PERM	MJ	2,6E+02	0,0E+00	0,0E+00	2,6E+02	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
PERT	MJ	4,4E+02	5,2E-01	1,0E+02	5,4E+02	9,2E-01	3,2E-04	0,0E+00	0,0E+00	9,9E-02	3,3E+00	-1,3E-01	-1,3E+02
PENRE	MJ	6,7E+02	9,5E+00	3,8E+01	7,2E+02	1,6E+01	1,7E-03	0,0E+00	0,0E+00	1,7E+00	1,4E+01	1,6E+00	-5,5E+02
PENRM	MJ.	1,1E+01	0,0E+00	0,0E+00	1,1E+01	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
PENRT	MJ	6,8E+02	9,5E+00	3,8E+01	7,3E+02	1,6E+01	1,7E-03	0,0E+00	0,0E+00	1,7E+00	1,4E+01	1,6E+00	-5,5E+02
SM	kg	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
RSF	MJ	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
NRSF	MJ	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
FW	m^3	5,2E-01	5,9E-04	3,4E-01	8,6E-01	1,1E-03	1,0E-05	0,0E+00	0,0E+00	1,1E-04	1,6E-01	-1,6E-04	-1,9E-01
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water												

[2] The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Waste production and output flows

Waste production

Results per functional or declared unit													
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste disposed	kg	6,5E-08	4,5E-11	3,9E-01	3,9E-01	7,8E-11	1,4E-13	0,0E+00	0,0E+00	8,3E-12	1,4E-09	2,7E-10	-6,1E-08
Non-hazardous waste disposed	kg	7,6E+00	1,3E-03	2,6E-02	7,6E+00	2,3E-03	1,4E-04	0,0E+00	0,0E+00	2,5E-04	5,8E-01	2,8E+00	-1,6E+00
Radioactive waste disposed	kg	2,5E-02	1,2E-05	1,3E-04	2,5E-02	2,0E-05	6,9E-08	0,0E+00	0,0E+00	2,2E-06	8,2E-04	-6,1E-05	-3,5E-02

Output flows

Results per functional or declared unit													
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
Components for re-use	kg	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
Material for recycling	kg	0,0E+00	0,0E+00	1,3E+01	1,3E+01	0,0E+00	8,3E-03	0,0E+00	0,0E+00	0,0E+00	1,3E+01	0,0E+00	0,0E+00
Materials for energy recovery	kg	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	3,7E+01	0,0E+00	0,0E+00
Exported energy, electricity	MJ	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
Exported energy, thermal	MJ	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00

Additional environmental indicators

Results per functional or declared unit													
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
PM	Disease incidence	5,3E-06	2,0E-08	9,7E-08	5,4E-06	1,3E-08	1,0E-11	0,0E+00	0,0E+00	1,4E-09	4,7E-08	5,4E-09	-1,6E-06
IRP	kBq U235 eq.	5,0E+00	1,7E-03	2,3E-01	5,2E+00	2,9E-03	1,1E-05	0,0E+00	0,0E+00	3,1E-04	1,3E-01	-1,1E-02	-5,8E+00
ETP-fw1	CTUe	6,7E+02	6,4E+00	1,3E+02	8,0E+02	1,1E+01	9,6E-04	0,0E+00	0,0E+00	1,2E+00	6,3E+00	1,3E+00	-1,5E+02
HTP-c1	CTUh	3,9E-08	1,3E-10	8,5E-09	4,8E-08	2,3E-10	6,3E-14	0,0E+00	0,0E+00	2,4E-11	4,3E-10	8,3E-11	-5,8E-06
HTP-nc1	CTUh	2,1E-06	7,1E-09	5,3E-08	2,1E-06	1,2E-08	9,0E-12	0,0E+00	0,0E+00	1,3E-09	1,6E-08	8,6E-09	-3,3E-07
SQP1	Dimension less	4,3E+03	3,2E+00	7,5E+00	4,3E+03	5,6E+00	4,6E-04	0,0E+00	0,0E+00	6,0E-01	4,1E+00	-3,0E-02	-9,0E+01

Information on biogenic carbon content

Results per functional or declared unit		
BIOGENIC CARBON CONTENT	**Unit**	**QUANTITY**
Biogenic carbon content in product	kg C	6,15E+00
Biogenic carbon content in packaging	kg C	0,00E+00

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO_2.

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Potential environmental impact – mandatory indicators according to EN 15804

Results per functional or declared unit													
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-fossil	kg CO_2 eq.	5,0E+01	7,1E-01	7,8E+00	5,8E+01	1,2E+00	1,2E-03	0,0E+00	0,0E+00	1,3E-01	2,1E+00	1,8E-01	-3,5E+01
GWP-biogenic	kg CO_2 eq.	-1,3E+00	-9,5E-04	1,9E-02	-1,3E+00	-1,7E-03	1,4E-03	0,0E+00	0,0E+00	-1,8E-04	6,5E+01	9,6E-01	-1,1E-01
GWP-luluc	kg CO_2 eq.	3,4E-02	3,8E-03	1,8E-03	4,0E-02	6,8E-03	1,4E-07	0,0E+00	0,0E+00	7,3E-04	1,4E-04	8,2E-05	-8,5E-03
GWP-total	kg CO_2 eq.	4,9E+01	7,2E-01	7,8E+00	5,7E+01	1,2E+00	2,6E-03	0,0E+00	0,0E+00	1,3E-01	6,7E+01	1,1E+00	-3,5E+01
ODP	kg CFC 11 eq.	3,1E-07	4,3E-14	8,2E-07	1,1E-06	7,3E-14	5,1E-16	0,0E+00	0,0E+00	7,8E-15	5,1E-12	-2,4E-13	-1,8E-10
AP	mol H^+ eq.	2,9E-01	2,1E-03	1,1E-02	3,1E-01	2,3E-03	1,5E-06	0,0E+00	0,0E+00	2,4E-04	9,4E-03	5,1E-04	-1,2E-01
EP-freshwater	kg PO_4^{3-} eq.	1,4E-03	2,1E-06	1,7E-03	3,2E-03	3,6E-06	3,4E-10	0,0E+00	0,0E+00	3,9E-07	1,2E-06	2,1E-05	-4,4E-05
EP-marine	kg N eq.	6,1E-02	7,4E-04	2,3E-03	6,4E-02	9,5E-04	5,7E-07	0,0E+00	0,0E+00	1,0E-04	3,1E-03	3,0E-04	-1,7E-02
EP-terrestrial	mol N eq.	6,7E-01	8,3E-03	2,3E-02	7,0E-01	1,1E-02	7,1E-06	0,0E+00	0,0E+00	1,2E-03	4,5E-02	1,6E-03	-1,9E-01
POCP	kg NMVOC eq.	1,8E-01	1,7E-03	6,3E-03	1,9E-01	2,1E-03	1,5E-06	0,0E+00	0,0E+00	2,2E-04	8,4E-03	7,6E-04	-5,1E-02
ADP-minerals&metals*	kg Sb eq.	1,1E-04	5,9E-08	1,3E-05	1,2E-04	1,0E-07	1,4E-11	0,0E+00	0,0E+00	1,1E-08	1,3E-07	2,3E-09	-4,3E-04
ADP-fossil*	MJ	6,8E+02	9,5E+00	3,8E+01	7,3E+02	1,6E+01	1,7E-03	0,0E+00	0,0E+00	1,7E+00	1,4E+01	1,6E+00	-5,5E+02
WDP	m^3	1,2E+01	6,2E-03	5,3E+00	1,8E+01	1,1E-02	4,4E-04	0,0E+00	0,0E+00	1,2E-03	6,9E+00	-4,1E-03	-5,4E+00
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption												

** Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.*

Potential environmental impact – additional mandatory and voluntary indicators

Results per functional or declared unit													
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-GHG[3]	kg CO_2 eq.	2,5E+01	7,0E-01	7,8E+00	3,3E+01	1,2E+00	2,6E-03	0,0E+00	0,0E+00	1,3E-01	6,7E+01	8,6E-01	-3,5E+01

Use of resources

Results per functional or declared unit													
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	1,9E+02	5,2E-01	1,0E+02	2,9E+02	9,2E-01	3,2E-04	0,0E+00	0,0E+00	9,9E-02	3,3E+00	-1,3E-01	-1,3E+02
PERM	MJ	2,6E+02	0,0E+00	0,0E+00	2,6E+02	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
PERT	MJ	4,4E+02	5,2E-01	1,0E+02	5,4E+02	9,2E-01	3,2E-04	0,0E+00	0,0E+00	9,9E-02	3,3E+00	-1,3E-01	-1,3E+02
PENRE	MJ	6,7E+02	9,5E+00	3,8E+01	7,2E+02	1,6E+01	1,7E-03	0,0E+00	0,0E+00	1,7E+00	1,4E+01	1,6E+00	-5,5E+02
PENRM	MJ.	1,1E+01	0,0E+00	0,0E+00	1,1E+01	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
PENRT	MJ	6,8E+02	9,5E+00	3,8E+01	7,3E+02	1,6E+01	1,7E-03	0,0E+00	0,0E+00	1,7E+00	1,4E+01	1,6E+00	-5,5E+02
SM	kg	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
RSF	MJ	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
NRSF	MJ	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
FW	m^3	5,2E-01	5,9E-04	3,4E-01	8,6E-01	1,1E-03	1,0E-05	0,0E+00	0,0E+00	1,1E-04	1,6E-01	-1,6E-04	-1,9E-01
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water												

[3] The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Waste production and output flows

Waste production

Results per functional or declared unit													
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste disposed	kg	6,5E-08	4,5E-11	3,9E-01	3,9E-01	7,8E-11	1,4E-13	0,0E+00	0,0E+00	8,3E-12	1,4E-09	2,7E-10	-6,1E-08
Non-hazardous waste disposed	kg	7,6E+00	1,3E-03	2,6E-02	7,6E+00	2,3E-03	1,4E-04	0,0E+00	0,0E+00	2,5E-04	5,8E-01	2,8E+00	-1,6E+00
Radioactive waste disposed	kg	2,5E-02	1,2E-05	1,3E-04	2,5E-02	2,0E-05	6,9E-08	0,0E+00	0,0E+00	2,2E-06	8,2E-04	-6,1E-05	-3,5E-02

Output flows

Results per functional or declared unit													
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
Components for re-use	kg	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
Material for recycling	kg	0,0E+00	0,0E+00	1,3E+01	1,3E+01	0,0E+00	8,3E-03	0,0E+00	0,0E+00	0,0E+00	1,3E+01	0,0E+00	0,0E+00
Materials for energy recovery	kg	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	3,7E+01	0,0E+00	0,0E+00
Exported energy, electricity	MJ	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00
Exported energy, thermal	MJ	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00	0,0E+00

Additional environmental indicators

Results per functional or declared unit												
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
PM	Disease incidence	5,3E-06	2,0E-08	9,7E-08	5,4E-06	1,3E-08	1,0E-11	0,0E+00	0,0E+00	1,4E-09	4,7E-08	5,4E-09	-1,6E-06
IRP	kBq U235 eq.	5,0E+00	1,7E-03	2,3E-01	5,2E+00	2,9E-03	1,1E-05	0,0E+00	0,0E+00	3,1E-04	1,3E-01	-1,1E-02	-5,8E+00
ETP-fw1	CTUe	6,7E+02	6,4E+00	1,3E+02	8,0E+02	1,1E+01	9,6E-04	0,0E+00	0,0E+00	1,2E+00	6,3E+00	1,3E+00	-1,5E+02
HTP-c1	CTUh	3,9E-08	1,3E-10	8,5E-09	4,8E-08	2,3E-10	6,3E-14	0,0E+00	0,0E+00	2,4E-11	4,3E-10	8,3E-11	-5,8E-06
HTP-nc1	CTUh	2,1E-06	7,1E-09	5,3E-08	2,1E-06	1,2E-08	9,0E-12	0,0E+00	0,0E+00	1,3E-09	1,6E-08	8,6E-09	-3,3E-07
SQP1	Dimension less	4,3E+03	3,2E+00	7,5E+00	4,3E+03	5,6E+00	4,6E-04	0,0E+00	0,0E+00	6,0E-01	4,1E+00	-3,0E-02	-9,0E+01

Information on biogenic carbon content

Results per functional or declared unit		
BIOGENIC CARBON CONTENT	**Unit**	**QUANTITY**
Biogenic carbon content in product	kg C	6,15E+00
Biogenic carbon content in packaging	kg C	0,00E+00

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO_2.

Additional information

Greenhouse gas emission from the use of electricity in the manufacturing phase

Electricity mix	Value	Unit
Enkla elbolaget mix 2021	0,0011	kg CO_2 eq/kWh

References

General Programme Instructions of the International EPD® System. Version 3.01.

ISO 14020:2000 Environmental labels and declarations — General principles

ISO 14025:2010 Environmental labels and declarations - Type III environmental declarations - Principles and procedures

ISO 14044:2006 Environmental management - Life cycle assessment - Requirements and guidelines

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

EN 17213: 2020 Windows and doors – Environmental Product Declarations – Product category rules for windows and pedestrian doorsets

C-PCR-007 (TO PCR 2019:14) Windows and doors. VERSION: 2020-04-09

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