

SMART SWITCH INSTERT

PEP ecopassport®

Product Environmental Profile

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Verifier accreditation number:	VH08	Information and reference documents:	www.pep-ecopassport.org
Date of issue:	April-25	Validity period:	5 years
Independent verification of the declaration and data in compliance with ISO 14025: 2006			
Internal:	☐	External:	☒
The PCR review was conducted by a panel of experts chaired by Julie Orgelet (Ddomain)			
PEPs are compliant with XP C08-100-1:2016 and EN 50693:2019 or NF E38-500 :2022 The components of the present PEP may not be compared with components from any other program.			
Document complies with ISO 14025:2006 "Environmental labels and declarations. Type III environmental declarations"			



ABB Purpose & Embedding Sustainability

ABB is committed to continually promoting and embedding sustainability across its operations and value chain, aspiring to become a role model for others to follow. With its ABB Purpose, ABB is focusing on reducing harmful emissions, preserving natural resources and championing ethical and humane behavior. The context of this PEP cannot be compared with the content based on another program/database. Scan QR code for more information

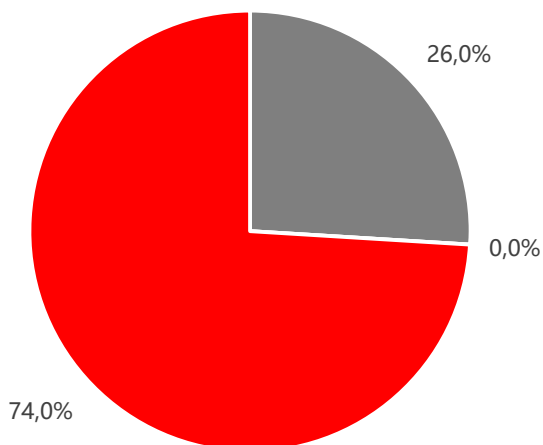


General information

Reference product	2CKA006710A0014 6716 U-500 FoH-switch, Einsatz
Description of the product	Smarter light switches for wireless remote control of Philips Hue lamps. For switching and dimming of Philips Hue lamps. For saving, calling up and dimming of a maximum of 2 individual light scenes. Without battery and maintenance-free due to >Energy harvesting<.. Requires Philips Hue Bridge (2nd generation square construction type) and Philips Hue app (Version 3.2 or higher). Maximum safety of function by means of Zigbee-Mesh technology.
Functional unit	Establish, support and interrupt the rated current 0,075A and rated voltage 230 V, with IP20 degree of protection for a wall-mounted installation according to the appropriate use scenario, and for the reference service life of the product of 20 years.
Other products covered	Products included in the section 'Extrapolation Factors'
Manufacturing address	Busch-Jaeger Elektro GmbH, Freisenbergstraße 2, 58513 Lüdenscheid, Germany



Constituent Materials



■ Plastics 23.29 kg ■ Metals 0.00 kg ■ Others 66.42 kg

Total weight of reference product and packaging

89,7

kg

Plastics as % of weight		Metals as % of weight		Others as % of weight	
Name and CAS number	Weight%	Name and CAS number	Weight%	Name and CAS number	Weight%
PA	21,6			PCB	23,4
Foam	3,1			Glass fiber	9,2
PET	1,3			Paper	23,4
				Cardboard	16,8
				PE film	1,2



Additional Information

Manufacturing	Includes the environmental impacts associated with extraction and processing of the raw materials used to produce the product and its packaging, transport to the manufacturing site and assembly.
Distribution	Includes the transportation in its packaging from the manufacturer's last logistic platform to the distributor.
Installation	Installation stage includes the installation of the products made manually.
Use	Energy consumption is calculated by following the PSR. The energy models used in this phase are the specific energy mixes based on ABB distribution. No maintenance is necessary.
End of life	Includes its transportation from the installation site to the final end of life treatment site, and end of life treatment processes. A value of 100 km transport by lorry is used for the transportation.
Benefits and loads beyond the system boundaries	Prevented impacts of recycling materials.



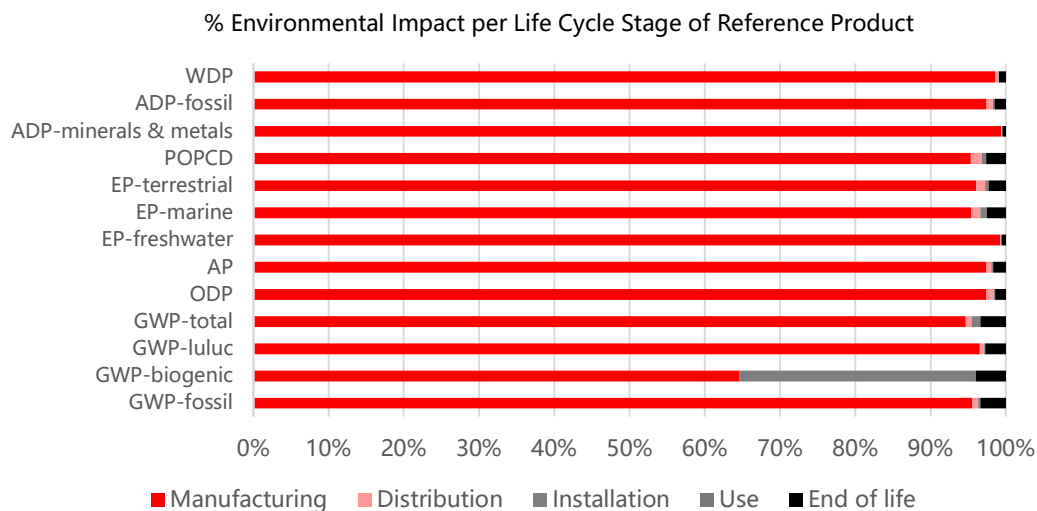
Environmental Impacts

Reference lifetime	20 years
Product category	Switches Wall-mounted (3.7)
Installation elements	Installation elements
Use scenario	Europe
Geographical representativeness	Europe
Technological representativeness	Technological representativeness
Software and database used	SimaPro 9.6.0.1 & Ecoinvent 3.10

Energy model used

Manufacturing	A specific mix of ABB's trading company has been used (Confidentia
Installation	Non-applicable
Use	Non-applicable
End of life	Recycling of product and packaging (Europe).

Common base of mandatory indicators



Environmental impact indicators

Indicator		Unit	Total	Manufacturing	Distributi on	Installation	Use	End of life	Benefits
GWP	Total	kg CO2 eq.	1,37E+00	1,29E+00	1,07E-02	1,56E-02	0,00E+00	4,63E-02	-4,20E-01
	Fossil	kg CO2 eq.	1,33E+00	1,27E+00	1,07E-02	3,86E-03	0,00E+00	4,48E-02	-4,17E-01
	Biogenic	kg CO2 eq.	3,72E-02	2,40E-02	7,32E-06	1,17E-02	0,00E+00	1,48E-03	-2,74E-03
	Luluc	kg CO2 eq.	5,93E-04	5,72E-04	3,49E-06	9,22E-07	0,00E+00	1,62E-05	-2,54E-04
ODP		kg CFC-11 eq.	2,08E-08	2,03E-08	2,12E-10	4,03E-11	0,00E+00	2,90E-10	-8,47E-09
AP		H+ eq.	5,23E-03	5,09E-03	3,34E-05	1,28E-05	0,00E+00	8,83E-05	-2,67E-03
EP	Freshwater	kg P eq.	6,58E-05	6,53E-05	8,22E-08	3,29E-08	0,00E+00	3,72E-07	-2,48E-05
	Marine	kg N eq.	9,52E-04	9,09E-04	1,11E-05	8,11E-06	0,00E+00	2,41E-05	-4,12E-04
	Terrestrial	mol N eq.	1,06E-02	1,01E-02	1,23E-04	5,02E-05	0,00E+00	2,42E-04	-4,49E-03
POPCD		kg NMVOC eq.	3,61E-03	3,44E-03	5,24E-05	2,04E-05	0,00E+00	9,55E-05	-1,57E-03
ADP	Minerals & metals	kg SB eq.	2,52E-05	2,50E-05	3,42E-08	1,10E-08	0,00E+00	1,13E-07	-1,99E-05
	Fossil	MJ	1,74E+01	1,70E+01	1,50E-01	3,31E-02	0,00E+00	2,64E-01	-5,34E+00
WDP		m³ eq. depr.	1,86E-01	1,83E-01	6,15E-04	1,65E-04	0,00E+00	1,74E-03	-1,18E-01

Resource use indicators

Indicator	Unit	Total	Manufacturing	Distribution	Installation	Use	End of life	Benefits
PERE	MJ	9,62E-02	7,84E-02	2,46E-03	1,22E-03	0,00E+00	1,41E-02	-4,03E-01
PERM	MJ	6,68E-01	6,68E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	7,64E-01	7,46E-01	2,46E-03	1,22E-03	0,00E+00	1,41E-02	-4,03E-01
PENRE	MJ	1,71E+01	1,66E+01	1,50E-01	3,31E-02	0,00E+00	2,64E-01	-5,34E+00
PENRM	MJ	3,30E-01	3,30E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	1,74E+01	1,70E+01	1,50E-01	3,31E-02	0,00E+00	2,64E-01	-5,34E+00

Common base of mandatory indicators

Use of secondary materials, water, and energy resources

Indicator	Unit	Total	Manufacturing	Distribution	Installation	Use	End of life	Benefits
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m³	1,13E-02	1,12E-02	2,05E-05	-4,24E-06	0,00E+00	6,51E-05	-3,41E-03

Waste category indicators

Indicator	Unit	Total	Manufacturing	Distribution	Installation	Use	End of life	Benefits
HWD	kg	1,34E-04	1,31E-04	1,01E-06	2,39E-07	0,00E+00	1,90E-06	-8,07E-05
N-HWD	kg	7,15E-02	4,71E-02	7,13E-03	4,57E-03	0,00E+00	1,26E-02	-1,44E-02
RWD	kg	2,78E-05	2,75E-05	4,78E-08	2,55E-08	0,00E+00	1,92E-07	-6,14E-06

Output flow indicators

Indicator	Unit	Total	Manufacturing	Distribution	Installation	Use	End of life	Benefits
CfRu	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MfR	kg	3,08E-01	2,15E-01	0,00E+00	4,05E-02	0,00E+00	5,23E-02	0,00E+00
MfER	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

Other indicators

Indicator		Unit	Total
Biogenic Carbon	Product	kg of C	0,00E+00
	Packaging	kg of C	2,09E-02

Extrapolation Factors

For products other than the Reference product covered by this PEP, the environmental impacts for each phase of the life cycle are obtained by multiplying the values of the Reference product by the extrapolation factors provided in the tables below, with the following formulas:

$$y = a * x_0$$

Where:

y is the selected impact category

a is the extrapolation factor from the tables below

x₀ is the environmental indicator of the reference product

All stages

Order code	Manufacturing stage	Distribution stage	Installation stage	Use stage	End-of-life stage	Benefits stage
2CKA006710A0014 / 6716 U-500 FoH-switch, Einsatz	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
2CKA006710A0015 / 6716 UBT BT-switch, Eins. SF	1.05E+00	1.05E+00	1.13E+00	1.00E+00	9.96E-01	1.05E+00
2CKA006710A0024 / 6716/10 UBT BT-switch, Eins. SF, x10	7.22E-01	7.22E-01	3.33E-01	1.00E+00	9.96E-01	7.22E-01
2CKA006710A0029 / 6716/11 UBT BT-switch, Eins. BSI,x10	6.57E-01	6.57E-01	3.33E-01	1.00E+00	8.86E-01	6.57E-01
2CKA006710A0030 / 6716/01 UBT BT-switch, Eins. BSI	9.87E-01	9.87E-01	1.13E+00	1.00E+00	8.86E-01	9.87E-01
2CKA006710A0031 / 6716/01 U-500 FoH-switch, Eins. BSI	9.20E-01	9.20E-01	9.95E-01	1.00E+00	8.67E-01	9.20E-01
2CKA006710A0044 / 62721/01 U-WL Smart Switch, BSI, WL	7.77E-01	7.77E-01	6.77E-01	1.00E+00	8.48E-01	7.77E-01
2CKA006710A0045 / 62721/11 U-WL Smart Switch, BSI, WL, x10	5.82E-01	5.82E-01	2.06E-01	1.00E+00	8.48E-01	5.82E-01
2CKA006710A0046 / 62721 U-WL Smart Switch, SF, WL	8.42E-01	8.42E-01	6.77E-01	1.00E+00	9.58E-01	8.42E-01
2CKA006710A0047 / 62721/10 U-WL Smart Switch, SF, WL, x10	6.47E-01	6.47E-01	2.06E-01	1.00E+00	9.58E-01	6.47E-01
2CKA006710A0048 / 62721 U-WL-500 Smart Switch, SF, WL	1.24E+00	1.24E+00	1.65E+00	1.00E+00	9.58E-01	1.24E+00
2CKA006710A0049 / 62721/10 U-WL-500 Smart Switch, SF, WL, x10	6.87E-01	6.87E-01	3.03E-01	1.00E+00	9.58E-01	6.87E-01
2CKA006710A0052 / 62721/01 U-WL-500 Smart Switch, BSI, WL	1.18E+00	1.18E+00	1.65E+00	1.00E+00	8.48E-01	1.18E+00
2CKA006710A0053 / 62721/11 U-WL-500 Smart Switch, BSI, WL,x10	6.22E-01	6.22E-01	3.03E-01	1.00E+00	8.48E-01	6.22E-01

Extrapolation Factors

Manufacturing stage

Impact category	2CKA0 06710A 0014 (reference product)	2CKA0 06710A 0015	2CKA0 06710A 0024	2CKA0 06710A 0029	2CKA0 06710A 0030	2CKA0 06710A 0031	2CKA0 06710A 0044	2CKA0 06710A 0045	2CKA0 06710A 0046	2CKA0 06710A 0047	2CKA0 06710A 0048	2CKA0 06710A 0049	2CKA0 06710A 0052	2CKA0 06710A 0053
GWP-total	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
GWP- fossil	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
GWP-biogenic	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
GWP-luluc	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
ODP	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
AP	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
EP-freshwater	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
EP-marine	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
EP-terrestrial	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
POCP	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
ADP-minerals	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
ADP-fossil	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
WDP	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
PERE	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
PERM	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
PERT	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
PENRE	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
PENRM	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
PENRT	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
SM	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
RSF	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
NRSF	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
FW	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
HWD	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
NHWD	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
RWD	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
CRU	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
MFR	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
MER	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
EE	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
Biogenic C, product	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
Biogenic C, packaging	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622

Extrapolation Factors

Distribution stage

Impact category	2CKA0 06710A 0014 (reference product)	2CKA0 06710A 0015	2CKA0 06710A 0024	2CKA0 06710A 0029	2CKA0 06710A 0030	2CKA0 06710A 0031	2CKA0 06710A 0044	2CKA0 06710A 0045	2CKA0 06710A 0046	2CKA0 06710A 0047	2CKA0 06710A 0048	2CKA0 06710A 0049	2CKA0 06710A 0052	2CKA0 06710A 0053
GWP-total	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
GWP- fossil	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
GWP-biogenic	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
GWP-luluc	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
ODP	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
AP	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
EP-freshwater	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
EP-marine	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
EP-terrestrial	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
POCP	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
ADP-minerals	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
ADP-fossil	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
WDP	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
PERE	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
PERM	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
PERT	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
PENRE	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
PENRM	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
PENRT	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
SM	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
RSF	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
NRSF	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
FW	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
HWD	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
NHWD	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
RWD	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
CRU	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
MFR	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
MER	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
EE	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
Biogenic C, product	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622
Biogenic C, packaging	1.000	1,054	0,722	0,657	0,987	0,920	0,777	0,582	0,842	0,647	1,243	0,687	1,178	0,622

Extrapolation Factors

Installation stage

Impact category	2CKA0 06710A 0014 (reference product)	2CKA0 06710A 0015	2CKA0 06710A 0024	2CKA0 06710A 0029	2CKA0 06710A 0030	2CKA0 06710A 0031	2CKA0 06710A 0044	2CKA0 06710A 0045	2CKA0 06710A 0046	2CKA0 06710A 0047	2CKA0 06710A 0048	2CKA0 06710A 0049	2CKA0 06710A 0052	2CKA0 06710A 0053
GWP-total	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
GWP- fossil	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
GWP-biogenic	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
GWP-luluc	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
ODP	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
AP	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
EP-freshwater	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
EP-marine	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
EP-terrestrial	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
POCP	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
ADP-minerals	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
ADP-fossil	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
WDP	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
PERE	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
PERM	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
PERT	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
PENRE	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
PENRM	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
PENRT	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
SM	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
RSF	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
NRSF	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
FW	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
HWD	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
NHWD	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
RWD	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
CRU	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
MFR	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
MER	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
EE	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
Biogenic C, product	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303
Biogenic C, packaging	1.000	1,134	0,333	0,333	1,130	0,995	0,677	0,206	0,677	0,206	1,648	0,303	1,648	0,303

Extrapolation Factors

Use stage

Impact category	2CKA006710A0014 (reference product)	2CKA006710A0015	2CKA006710A0024	2CKA006710A0029	2CKA006710A0030	2CKA006710A0031	2CKA006710A0044	2CKA006710A0045	2CKA006710A0046	2CKA006710A0047	2CKA006710A0048	2CKA006710A0049	2CKA006710A0052	2CKA006710A0053
GWP-total	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
GWP- fossil	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
GWP-biogenic	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
GWP-luluc	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
ODP	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
AP	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
EP-freshwater	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
EP-marine	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
EP-terrestrial	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
POCP	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
ADP-minerals	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
ADP-fossil	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
WDP	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PERE	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PERM	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PERT	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PENRE	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PENRM	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PENRT	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
SM	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
RSF	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
NRSF	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
FW	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
HWD	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
NHWD	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
RWD	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CRU	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
MFR	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
MER	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
EE	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Biogenic C, product	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Biogenic C, packaging	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Extrapolation Factors

EoL stage

Impact category	2CKA0 06710A 0014 (reference product)	2CKA0 06710A 0015	2CKA0 06710A 0024	2CKA0 06710A 0029	2CKA0 06710A 0030	2CKA0 06710A 0031	2CKA0 06710A 0044	2CKA0 06710A 0045	2CKA0 06710A 0046	2CKA0 06710A 0047	2CKA0 06710A 0048	2CKA0 06710A 0049	2CKA0 06710A 0052	2CKA0 06710A 0053
GWP-total	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
GWP- fossil	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
GWP-biogenic	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
GWP-luluc	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
ODP	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
AP	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
EP-freshwater	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
EP-marine	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
EP-terrestrial	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
POCP	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
ADP-minerals	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
ADP-fossil	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
WDP	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
PERE	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
PERM	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
PERT	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
PENRE	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
PENRM	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
PENRT	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
SM	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
RSF	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
NRSF	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
FW	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
HWD	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
NHWD	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
RWD	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
CRU	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
MFR	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
MER	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
EE	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
Biogenic C, product	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
Biogenic C, packaging	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848

Extrapolation Factors

Benefits stage

Impact category	2CKA0 06710A 0014 (reference product)	2CKA0 06710A 0015	2CKA0 06710A 0024	2CKA0 06710A 0029	2CKA0 06710A 0030	2CKA0 06710A 0031	2CKA0 06710A 0044	2CKA0 06710A 0045	2CKA0 06710A 0046	2CKA0 06710A 0047	2CKA0 06710A 0048	2CKA0 06710A 0049	2CKA0 06710A 0052	2CKA0 06710A 0053
GWP-total	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
GWP- fossil	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
GWP-biogenic	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
GWP-luluc	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
ODP	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
AP	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
EP-freshwater	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
EP-marine	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
EP-terrestrial	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
POCP	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
ADP-minerals	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
ADP-fossil	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
WDP	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
PERE	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
PERM	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
PERT	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
PENRE	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
PENRM	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
PENRT	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
SM	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
RSF	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
NRSF	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
FW	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
HWD	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
NHWD	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
RWD	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
CRU	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
MFR	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
MER	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
EE	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
Biogenic C, product	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848
Biogenic C, packaging	1.000	0,996	0,996	0,886	0,886	0,867	0,848	0,848	0,958	0,958	0,958	0,958	0,848	0,848

Glossary

Environmental impact Indicators

GWP-total	Global Warming Potential total (Climate change)
GWP-fossil	Global Warming Potential fossil
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
EP-freshwater	Eutrophication potential - freshwater compartment
EP-marine	Eutrophication potential - fraction of nutrients reachin marine end compartment
EP-terrestrial	Eutrophication potential - Accumulated Exceedance
POPCD	Formation potential of tropospheric ozone
ADP-m&m	Abiotic Depletion for non-fossil resources potential
ADP-fossil	Abiotic Depletion for fossil resources potential, WDP
WDP	Water deprivation potential

Resource indicators

PENRE	Use of non-renewable primary energy excluding renewable primary energy resources used as raw material
PENRM	Use of non-renewable primary energy resources used as raw material
PENRT	Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials)
PERE	Use of renewable primary energy excluding non-renewable primary energy resources used as raw material.
PERM	Use of renewable primary energy resources used as raw material
PERT	Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)

Secondary materials, water and energy resources		Waste category indicators	
SM	Use of secondary materials	HWD	Hazardous waste disposed
RSF	Use of renewable secondary fuels	N-HWD	Non-hazardous waste disposed
NRSF	Use of non-renewable secondary fuels	RWD	Radioactive waste disposed
FW	Net use of fresh water		

Output flow indicators

CfRu	Components for re-use
MfR	Materials for recycling
MfER	Materials for energy recovery
EE	Exported Energy

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