

CARLON BLUE™ PVC BOXES

# PEP ecopassport®

## Product Environmental Profile



Document in compliance with ISO 14025: 2010 "Environmental labels and declarations. Type III environmental declarations"

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# 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.



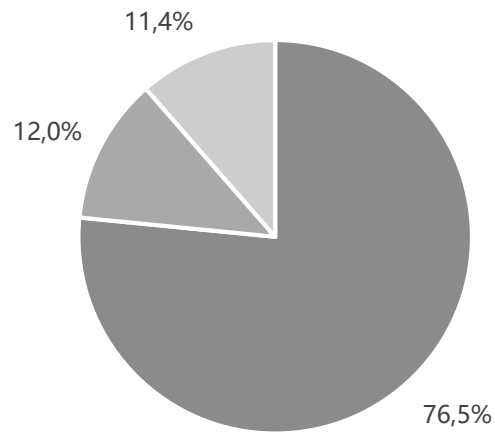
## General Information

Reference product	Product B118A
Description of the product	The Carlon Blue™ PVC boxes family is a low-voltage structured cable management system makes it easy for you to run wiring and install outlets for data, voice and cable TV in walls or floors in any room.
Functional unit	<p>The function is to accommodate and protect cables for energy and communication systems. The functional unit is to connect a workstation remote from the wall to the energy and communication networks for 20 years, via the following wiring accessories:</p> <ul style="list-style-type: none"> <li>- 120 volt ac electrical switches and outlets with a maximum of 20 amps;</li> <li>- 220 volt ac electrical outlets typically used for dryers and electric stoves that have a maximum 30 amp circuit capabilities;</li> <li>- low voltage data and voice cables.</li> </ul> <p>The reference product is B118A with a weight of 83.10 g and its packaging of 10.85 g.</p>
Other product covered	B114RB, B120A-UPC, B121ADJ, B122A-UPC, B225R-UPC, B232ACP, B344AB, B455A-UPC, BH122A-UPC

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# Constituent Materials



■ Plastics 71,87175 g   ■ Metals 11,274 g   ■ Others 10,72909 g

**Total weight of  
Reference product**

93.95

**g**

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%
PVC	76.4	Steel	12.0	Label	0.1
PE	0.1	-	-	Carton	5.02
-	-	-	-	Glue	0.1
-	-	-	-	Wood	6.2

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# Additional Environmental Information

Manufacturing	The manufacturing stage includes the production and transportation to the manufacturer's last logistic platform of Carlon Blue™ PVC boxes and its packaging. The production occurs at the ABB factory located in Portland (TN).
Distribution	The transport from ABB Portland factory to storages (Phoenix, Byhalia and Allentown) sites was taken into account. For the distribution of the product from storage to the final customer, the distance has been calculated and a weighted average has been computed relative to distances with a cut-off about 10%.
Installation	No installation materials are required in the life cycle of the product.
Use	No material and energy consumption occur during the use stage. No maintenance phase is planned for the PVC boxes.
End of life	The default end-of-life scenario provided by the PCR document has been adopted for the PVC boxes (100% incineration).
Benefits and loads beyond the system boundaries	No benefits and loads beyond the system boundaries has been considered.

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# Environmental Impacts

Reference lifetime	20 years
Product category	PCR-ed4-EN-2021 09 06 PSR-0003-ed2-EN-2023 06 06
Installation elements	No installation materials are required in the life cycle of the product.
Use scenario	No material and energy consumption occur during the use stage. No maintenance phase is planned for the PVC boxes.
Geographical representativeness	Global
Technological representativeness	Technological representativeness refers to the specific production process for primary data.
Software and database used	SimaPro 9.4 and ecoinvent 3.8

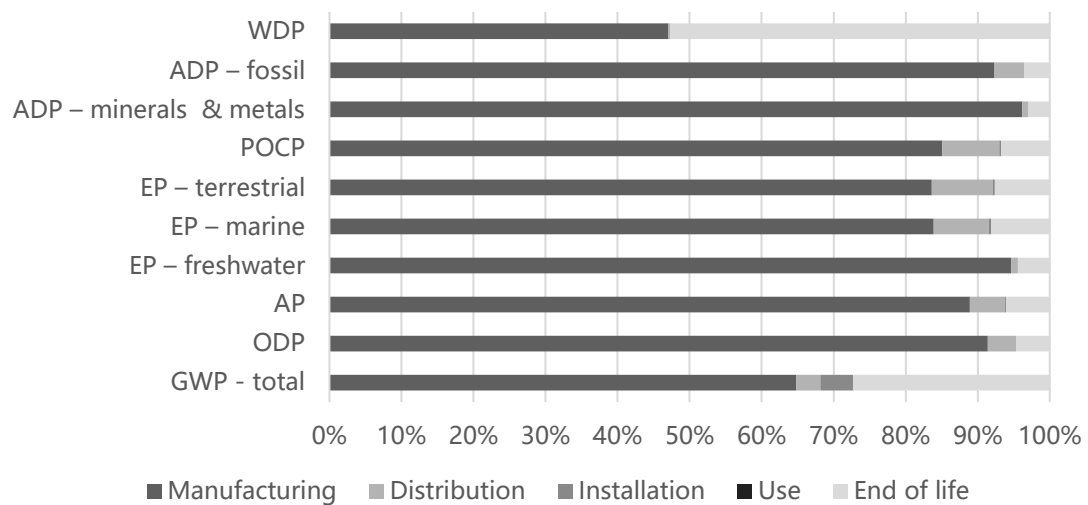
## Energy model used

Manufacturing	Ecoinvent 3.8 Electricity, medium voltage {WECC, US only}  market for   Cut-off, S
Installation	No energy consumption occur during the installation stage.
Use	No energy consumption occur during the use stage.
End of life	The energy-related processes used for the inputs of the end-of-life stage are those included in ecoinvent 3.8

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# Common base of mandatory indicators

% Environmental Impact per Life Cycle Stage of Reference Product



## Environmental impact indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Benefi- ts
GWP-total	kg CO <sub>2</sub> eq	5.59E-01	3.62E-01	1.86E-02	2.55E-02	0.00E+00	1.53E-01	0,00E+00
GWP-fossil	kg CO <sub>2</sub> eq	5.46E-01	3.74E-01	1.86E-02	8.16E-04	0.00E+00	1.52E-01	0,00E+00
GWP-biogenic	kg CO <sub>2</sub> eq	1.28E-02	-1.24E-02	1.44E-05	2.47E-02	0.00E+00	5.04E-04	0,00E+00
GWP-luluc	kg CO <sub>2</sub> eq	3.86E-04	3.57E-04	6.98E-06	1.31E-07	0.00E+00	2.16E-05	0,00E+00
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	kg CFC-11 eq.	1.07E-07	9.79E-08	4.22E-09	4.39E-11	0.00E+00	4.97E-09	0,00E+00
ODP = Depletion potential of the stratospheric ozone layer								
AP	H+ eq	1.93E-03	1.72E-03	9.46E-05	2.91E-06	0.00E+00	1.17E-04	0,00E+00
AP = Acidification potential, Accumulated Exceedance								
EP-freshwater	kg P eq	1.54E-04	1.46E-04	1.35E-06	6.88E-08	0.00E+00	6.83E-06	0,00E+00
EP-marine	kg N eq	4.21E-04	3.53E-04	3.20E-05	1.40E-06	0.00E+00	3.43E-05	0,00E+00
EP-terrestrial	mol N eq	4.15E-03	3.47E-03	3.50E-04	1.31E-05	0.00E+00	3.17E-04	0,00E+00
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	kg NMVOCe q.	1.32E-03	1.12E-03	1.04E-04	3.33E-06	0.00E+00	8.86E-05	0,00E+00
POCP = Formation potential of tropo-sphéric ozone								
ADP-minerals & metals	kg Sb eq.	5.49E-06	5.28E-06	4.27E-08	9.40E-10	0.00E+00	1.65E-07	0,00E+00
ADP-fossil	MJ	7.03E+00	6.50E+00	2.86E-01	3.53E-03	0.00E+00	2.48E-01	0,00E+00
ADP-minerals & metals = Abiotic depletion potential for non-fossil resources ADP-fossil = Abiotic depletion for fossil resources potential								
WDP	m <sup>3</sup> e depr.	4.15E-01	1.95E-01	1.11E-03	1.57E-04	0.00E+00	2.19E-01	0,00E+00
WDP = Water Deprivation potential								

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# Common base of mandatory indicators

## Inventory flows indicator – Resource use indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Bene- fits
PERE	MJ	8.07E-01	7.82E-01	3.17E-03	8.50E-05	0.00E+00	2.16E-02	0.00E+00
PERM	MJ	1.58E-01	1.58E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	9.65E-01	9.40E-01	3.17E-03	8.50E-05	0.00E+00	2.16E-02	0.00E+00
PENRE	MJ	5.48E+00	4.94E+00	2.86E-01	3.53E-03	0.00E+00	2.48E-01	0.00E+00
PENRM	MJ	1.55E+00	1.55E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	7.03E+00	6.50E+00	2.86E-01	3.53E-03	0.00E+00	2.48E-01	0.00E+00

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

## Inventory flows indicator – Indicators describing the use of secondary materials, water, and energy re-sources

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Bene- fits
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	m <sup>3</sup>	1.11E-02	4.44E-03	3.59E-05	6.07E-06	0.00E+00	6.66E-03	0.00E+00

SM = Use of secondary material

RSF = Use of renewable secondary fuels

NRSF = Use of non-renewable secondary fuels

FW = Use of net fresh water

## Inventory flows indicator – Waste category indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Bene- fits
Hazardous waste disposed	kg	9.20E-06	8.02E-06	7.03E-07	9.99E-09	0.00E+00	4.67E-07	9.20E-06
Non-hazardous waste disposed	kg	1.80E-01	1.10E-01	2.65E-02	3.52E-04	0.00E+00	4.25E-02	1.80E-01
Radioactive waste disposed	kg	1.52E-05	1.20E-05	1.89E-06	1.47E-08	0.00E+00	1.25E-06	1.52E-05

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# Common base of mandatory indicators

## Inventory flows indicator – Output flow indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Bene- fits
Component for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	kg	9.87E-03	9.87E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.87E-03
Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy	MJ	7.59E-01	8.65E-04	0.00E+00	7.31E-02	0.00E+00	6.85E-01	7.59E-01

## Inventory flows indicator – Other indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Bene- fits
Biogenic carbon content of the product	kg of C	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biogenic carbon content of the associated packaging	kg of C	5.66E-03	5.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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# Optional indicators

## Environmental indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Bene- fits
Total use of primary energy during the life cycle	MJ	8.00E+00	7.44E+00	2.89E-01	3.62E-03	0.00E+00	2.70E-01	0,00E+00
Emissions of fine particles	Incidence of diseases	2.32E-08	2.00E-08	2.19E-09	3.36E-11	0.00E+00	1.02E-09	0,00E+00
Ionizing radiation, human health	kBq U235 eq.	3.32E-02	3.02E-02	1.35E-03	1.30E-05	0.00E+00	1.65E-03	0,00E+00
Ecotoxicity (freshwater)	CTU <sub>e</sub>	1.78E+01	9.14E+00	2.40E-01	1.37E-02	0.00E+00	8.45E+00	0,00E+00
Human toxicity, carcinogenic effects	CTUh	1.99E-09	1.95E-09	6.24E-12	7.53E-13	0.00E+00	3.13E-11	0,00E+00
Human toxicity, non-carcinogenic effects	CTUh	8.82E-09	6.17E-09	2.48E-10	3.28E-11	0.00E+00	2.37E-09	0,00E+00
Impact related to land use/soil quality		4.10E+00	3.63E+00	3.24E-01	2.47E-03	0.00E+00	1.49E-01	0,00E+00

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# Extrapolation Factors

The environmental impacts of the listed products has been calculated by the extrapolation rules.

Name	Weight (g)	Composition		
		PEP Material Category	Material	Weight (g)
B114RB	75.84	Metal	Steel	4.16
		Plastic	PC	2.14
		Plastic	PVC	69.54
B118A	83.10	Metal	Steel	11.32
		Plastic	PVC	71.78
B120A-UPC	90.25	Metal	Steel	11.32
		Plastic	PVC	78.93
B121ADJ	160.06	Metal	Steel galvanized	73.37
		Metal	Steel	6.18
		Plastic	PVC	80.51
B122A-UPC	98.41	Metal	Steel	11.32
		Plastic	PVC	87.09
B225R-UPC	111.35	Metal	Steel	4.16
		Plastic	PC	2.14
		Plastic	PVC	105.05
B232ACP	123.76	Metal	Steel	10.36
		Plastic	PVC	113.40
B344AB	164.58	Metal	Steel	10.36
		Plastic	PVC	154.22
B455A-UPC	199.05	Metal	Steel	10.36
		Plastic	PVC	188.69
BH122A-UPC	136.96	Metal	Steel	11.32
		Plastic	PVC	123.45
		Plastic	EVA	2.19

To determinate the environmental impacts associated with each product, the multiplication factor must be multiplied by the impacts of the reference product. Each environmental indicator value for each phase shall be calculated using the following formulas:

$$y = a * x$$

Where:

- y is the impact chosen category;
- x is the impact chosen category of reference product;
- a is the multiplication factor;

The calculation of the coefficients a for the Use Stage was not performed because the selected parameters do not affect the values for this stage.

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MULTIPLICATION FACTORS (a) FOR MANUFACTURING									
	B114RB	B120A-UPC	B121ADJ	B122A-UPC	B225R-UPC	B232ACP	B344A-UPC	B455A-UPC	BH122A-UPC
Climate change	0.835	1.062	2.474	1.139	1.150	1.344	1.706	2.018	1.519
Climate change - Fossil	0.850	1.070	2.483	1.148	1.231	1.420	1.855	2.200	1.523
Climate change - Biogenic	1.287	1.305	2.766	1.416	3.614	3.649	6.213	7.543	1.641
Climate change - Land use and LU change	0.759	1.064	2.628	1.122	1.238	1.491	2.000	2.351	1.442
Ozone depletion	0.938	1.092	1.377	1.198	1.411	1.555	2.104	2.552	1.680
Acidification	0.809	1.066	3.587	1.138	1.180	1.402	1.822	2.150	1.485
Eutrophication. freshwater	0.809	1.070	2.583	1.148	1.197	1.422	1.860	2.209	1.523
Eutrophication. marine	0.820	1.069	2.762	1.141	1.235	1.447	1.909	2.259	1.501
Eutrophication. terrestrial	0.818	1.069	4.672	1.142	1.215	1.432	1.880	2.222	1.497
Photochemical ozone formation	0.819	1.069	2.727	1.143	1.206	1.423	1.864	2.202	1.498
Resource use. minerals and metals	0.710	1.055	3.910	1.119	1.001	1.306	1.642	1.913	1.414
Resource use. fossils	0.893	1.080	2.019	1.170	1.316	1.480	1.967	2.357	1.605
Water use (AWARE)	0.904	1.083	2.016	1.177	1.344	1.504	2.011	2.417	1.619
Use of renewable primary energy. excluding renewable primary energy resources used as raw materials	0.799	1.139	3.491	1.218	1.739	2.070	3.111	3.716	1.523
Use of renewable primary energy resources used as raw materials	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total use renew. primary energy res.	0.833	1.115	3.072	1.181	1.615	1.890	2.756	3.259	1.435
Use of non-renewable primary energy. excluding non-renewable primary energy resources used as raw materials	0.860	1.105	2.338	1.224	1.415	1.631	2.270	2.782	1.795
Use of non-renewable primary energy resources used as raw materials	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total use non-renew. primary energy res.	0.893	1.080	2.018	1.171	1.316	1.480	1.966	2.357	1.605
Use of secondary material	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Use of renewable secondary fuels	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Use of non-renewable secondary fuels	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Net use of fresh water	0.877	1.079	2.188	1.167	1.300	1.478	1.964	2.349	1.586
Hazardous waste disposed	0.833	1.074	5.886	1.158	1.226	1.441	1.894	2.255	1.540
Non-hazardous waste disposed	0.556	1.030	4.506	1.064	0.727	1.141	1.336	1.485	1.221
Radioactive waste disposed	0.828	1.074	2.287	1.157	1.230	1.449	1.909	2.273	1.544
Particulate matter	0.810	1.058	3.784	1.115	1.189	1.392	1.809	2.110	1.410
Ionising radiation	0.824	1.073	2.382	1.156	1.214	1.434	1.880	2.240	1.544
Ecotoxicity. freshwater	0.735	1.053	2.870	1.111	1.033	1.305	1.643	1.905	1.387
Human toxicity. cancer	0.425	1.011	5.366	1.021	0.482	0.993	1.060	1.108	1.063
Human toxicity. non-cancer	0.802	1.062	3.158	1.130	1.141	1.364	1.752	2.056	1.453
Land use	0.908	1.169	2.914	1.249	1.967	2.278	3.489	4.140	1.442
Component for reuse	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Materials for recycling	0.492	1.037	2.507	1.046	0.674	1.364	1.636	1.644	1.087
Materials for energy recovery	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Exported energy	0.913	1.086	1.926	1.184	1.340	1.489	1.981	2.395	1.648

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MULTIPLICATION FACTORS (a) FOR DISTRIBUTION									
	B114RB	B120A-UPC	B121ADJ	B122A-UPC	B225R-UPC	B232ACP	B344A-UPC	B455A-UPC	BH122A-UPC
Climate change	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Climate change - Fossil	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Climate change - Biogenic	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Climate change - Land use and LU change	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Ozone depletion	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Acidification	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Eutrophication. freshwater	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Eutrophication. marine	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Eutrophication. terrestrial	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Photochemical ozone formation	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Resource use. minerals and metals	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Resource use. fossils	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Water use (AWARE)	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Use of renewable primary energy. excluding renewable primary energy resources used as raw materials	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Use of renewable primary energy resources used as raw materials	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total use renew. primary energy res.	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Use of non-renewable primary energy. excluding non-renewable primary energy resources used as raw materials	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Use of non-renewable primary energy resources used as raw materials	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total use non-renew. primary energy res.	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Use of secondary material	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Use of renewable secondary fuels	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Use of non-renewable secondary fuels	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Net use of fresh water	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Hazardous waste disposed	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Non-hazardous waste disposed	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Radioactive waste disposed	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Particulate matter	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Ionising radiation	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Ecotoxicity. freshwater	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Human toxicity. cancer	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Human toxicity. non-cancer	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Land use	0.930	1.104	2.060	1.199	1.533	1.686	2.366	2.855	1.624
Component for reuse	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Materials for recycling	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Materials for energy recovery	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Exported energy	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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MULTIPLICATION FACTORS (a) FOR INSTALLATION									
	B114RB	B120A-UPC	B121ADJ	B122A-UPC	B225R-UPC	B232ACP	B344A-UPC	B455A-UPC	BH122A-UPC
Climate change	1.055	1.222	3.176	1.274	3.035	3.163	5.263	6.314	1.443
Climate change - Fossil	1.011	1.276	2.594	1.380	2.727	3.031	5.043	6.050	1.329
Climate change - Biogenic	1.057	1.220	3.195	1.270	3.045	3.168	5.271	6.322	1.447
Climate change - Land use and LU change	0.977	1.183	3.093	1.211	2.874	2.929	4.869	5.840	1.359
Ozone depletion	1.019	1.200	3.167	1.238	2.971	3.055	5.083	6.097	1.406
Acidification	1.035	1.204	3.213	1.243	3.016	3.103	5.163	6.193	1.428
Eutrophication. freshwater	1.058	1.271	2.831	1.366	2.902	3.172	5.276	6.328	1.407
Eutrophication. marine	1.039	1.204	3.228	1.243	3.029	3.114	5.181	6.214	1.434
Eutrophication. terrestrial	1.043	1.212	3.192	1.257	3.021	3.127	5.203	6.242	1.433
Photochemical ozone formation	1.043	1.213	3.186	1.258	3.019	3.126	5.202	6.240	1.432
Resource use. minerals and metals	0.989	1.181	3.169	1.206	2.923	2.966	4.933	5.917	1.377
Resource use. fossils	1.032	1.213	3.138	1.259	2.981	3.094	5.148	6.175	1.416
Water use (AWARE)	0.639	0.900	3.578	0.728	2.506	1.913	3.175	3.806	1.079
Use of renewable primary energy. excluding renewable primary energy resources used as raw materials	0.975	1.166	3.212	1.180	2.917	2.923	4.862	5.832	1.368
Use of renewable primary energy resources used as raw materials	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total use renew. primary energy res.	0.975	1.166	3.212	1.180	2.917	2.923	4.862	5.832	1.368
Use of non-renewable primary energy. excluding non-renewable primary energy resources used as raw materials	1.032	1.213	3.138	1.259	2.981	3.094	5.148	6.175	1.416
Use of non-renewable primary energy resources used as raw materials	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total use non-renew. primary energy res.	1.032	1.213	3.138	1.259	2.981	3.094	5.148	6.175	1.416
Use of secondary material	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Use of renewable secondary fuels	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Use of non-renewable secondary fuels	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Net use of fresh water	0.750	0.978	3.528	0.860	2.670	2.248	3.735	4.479	1.182
Hazardous waste disposed	0.893	1.190	2.652	1.237	2.556	2.674	4.444	5.329	1.222
Non-hazardous waste disposed	0.980	1.195	3.009	1.235	2.844	2.935	4.878	5.850	1.352
Radioactive waste disposed	1.031	1.217	3.100	1.268	2.964	3.090	5.142	6.168	1.410
Particulate matter	1.048	1.226	3.120	1.282	3.000	3.143	5.231	6.275	1.429
Ionising radiation	1.017	1.202	3.142	1.242	2.957	3.047	5.070	6.081	1.400
Ecotoxicity. freshwater	0.891	1.100	3.298	1.068	2.813	2.671	4.439	5.324	1.297
Human toxicity. cancer	1.024	1.182	3.307	1.204	3.036	3.067	5.100	6.117	1.430
Human toxicity. non-cancer	1.027	1.192	3.256	1.222	3.021	3.078	5.120	6.141	1.426
Land use	1.029	1.221	3.064	1.275	2.947	3.085	5.132	6.156	1.405
Component for reuse	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Materials for recycling	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Materials for energy recovery	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Exported energy	1.061	1.234	3.121	1.295	3.020	3.180	5.294	6.351	1.440

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MULTIPLICATION FACTORS (a) FOR END OF LIFE									
	B114RB	B120A-UPC	B121ADJ	B122A-UPC	B225R-UPC	B232ACP	B344A-UPC	B455A-UPC	BH122A-UPC
Climate change	1.001	1.099	1.136	1.213	1.494	1.578	2.145	2.624	1.752
Climate change - Fossil	1.001	1.099	1.131	1.213	1.495	1.579	2.147	2.626	1.753
Climate change - Biogenic	0.793	1.070	2.861	1.150	1.142	1.384	1.785	2.124	1.509
Climate change - Land use and LU change	0.960	1.098	1.227	1.209	1.446	1.568	2.127	2.598	1.709
Ozone depletion	0.966	1.099	1.181	1.211	1.456	1.573	2.136	2.612	1.716
Acidification	0.973	1.099	1.187	1.211	1.462	1.572	2.135	2.610	1.723
Eutrophication, freshwater	0.957	1.097	1.259	1.208	1.440	1.564	2.120	2.589	1.706
Eutrophication, marine	0.982	1.098	1.196	1.211	1.470	1.571	2.133	2.607	1.732
Eutrophication, terrestrial	0.979	1.098	1.208	1.210	1.466	1.570	2.130	2.604	1.729
Photochemical ozone formation	0.976	1.098	1.218	1.210	1.462	1.569	2.128	2.601	1.725
Resource use, minerals and metals	0.969	1.099	1.147	1.212	1.461	1.577	2.143	2.621	1.719
Resource use, fossils	0.965	1.098	1.212	1.210	1.452	1.570	2.130	2.603	1.714
Water use (AWARE)	0.970	1.100	1.118	1.213	1.465	1.580	2.149	2.630	1.721
Use of renewable primary energy, excluding renewable primary energy resources used as raw materials	0.969	1.099	1.139	1.213	1.462	1.578	2.145	2.624	1.720
Use of renewable primary energy resources used as raw materials	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total use renew. primary energy res.	0.969	1.099	1.139	1.213	1.462	1.578	2.145	2.624	1.720
Use of non-renewable primary energy, excluding non-renewable primary energy resources used as raw materials	0.965	1.098	1.212	1.210	1.452	1.570	2.130	2.603	1.714
Use of non-renewable primary energy resources used as raw materials	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total use non-renew. primary energy res.	0.965	1.098	1.212	1.210	1.452	1.570	2.130	2.603	1.714
Use of secondary material	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Use of renewable secondary fuels	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Use of non-renewable secondary fuels	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Net use of fresh water	0.970	1.100	1.119	1.213	1.465	1.580	2.149	2.629	1.721
Hazardous waste disposed	0.965	1.098	1.235	1.209	1.451	1.567	2.125	2.596	1.714
Non-hazardous waste disposed	0.968	1.099	1.159	1.212	1.459	1.576	2.141	2.618	1.718
Radioactive waste disposed	0.961	1.098	1.228	1.209	1.447	1.568	2.126	2.598	1.710
Particulate matter	0.951	1.095	1.372	1.204	1.425	1.552	2.096	2.556	1.697
Ionising radiation	0.965	1.099	1.182	1.211	1.455	1.573	2.136	2.611	1.715
Ecotoxicity, freshwater	0.970	1.100	1.127	1.213	1.464	1.579	2.147	2.627	1.721
Human toxicity, cancer	0.975	1.098	1.204	1.210	1.463	1.571	2.131	2.605	1.725
Human toxicity, non-cancer	0.975	1.099	1.134	1.213	1.469	1.578	2.146	2.625	1.726
Land use	0.954	1.096	1.311	1.206	1.433	1.558	2.109	2.574	1.701
Component for reuse	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Materials for recycling	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Materials for energy recovery	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Exported energy	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

MULTIPLICATION FACTORS (a) FOR BIOGENIC CARBON CONTENT									
	B114RB	B120A-UPC	B121ADJ	B122A-UPC	B225R-UPC	B232ACP	B344A-UPC	B455A-UPC	BH122A-UPC
Biogenic carbon content in the product	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Biogenic carbon content in accompanying packaging	1.043	1.199	3.273	1.234	3.055	3.127	5.203	6.240	1.444

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# Environmental Impact Indicator Glossary

## Impact indicators

Indicator	Description	Unit
Global warming potential (GWP) - total	Indicator of potential global warming caused by emissions to air contributing to the greenhouse effect. The total global warming potential (GWP-total) is the sum of three sub-categories of climate change. GWP-total = GWP-fossil + GWP-biogenic + GWP-land use and land use change	kg CO <sub>2</sub> eq.
Ozone depletion (ODP)	Emissions to air that contribute to the destruction of the stratospheric ozone layer	kg CFC-11 eq.
Acidification of soil and water (A)	Acidification of soils and water caused by the release of certain gases to the atmospheric, such as nitrogen oxides and Sulphur oxides	H+ eq.
Eutrophication (E)	Indicator of the contribution to eutrophication of water by the enrichment of the aquatic ecosystem with nutritional elements, e.g. industrial or domestic effluents, agriculture, etc. This indicator is divided to three: freshwater, marine and terrestrial.	kg P eq., kg N eq., mole N eq.
Photochemical ozone creation (POCP)	Indicator of emission of gases that affect the creation of photochemical ozone in the lower atmosphere (smog) because of the rays of the sun.	kg NMVOC eq.
Depletion of abiotic resources – elements (ADPe)	Indicator of the depletion of natural non-fossil resources	kg Sb eq.
Depletion of abiotic resources – fossil fuels (ADPf)	The use of non-renewable fossil resources in an unsuitable way (e.g. from material to waste)	MJ (lower heating value)
Water Deprivation potential (WDP)	Deprivation-weighted water consumption. Assesses the potential of water deprivation, to either humans or ecosystem, building on the assumption that the less water remaining available per area, the more likely another user will be deprived.	m <sup>3</sup> e depr.

## Resource use indicators

Indicator	Description	Unit
Total use of primary energy	Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials) + Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ (lower heating value)

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Internal



External



Independent verification of the declaration and data, in compliance with ISO 14025:2006

The PCR review was conducted by a panel of experts chaired by Julie Orgelet (DDemain)

PEP are compliant with XP C08-100-1 :2016 or EN 50693:2019. The elements of the present PEP cannot be compared with elements from another program.

Document in compliance with ISO 14025: 2006, "Environmental labels and declarations. Type III environmental declarations".



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