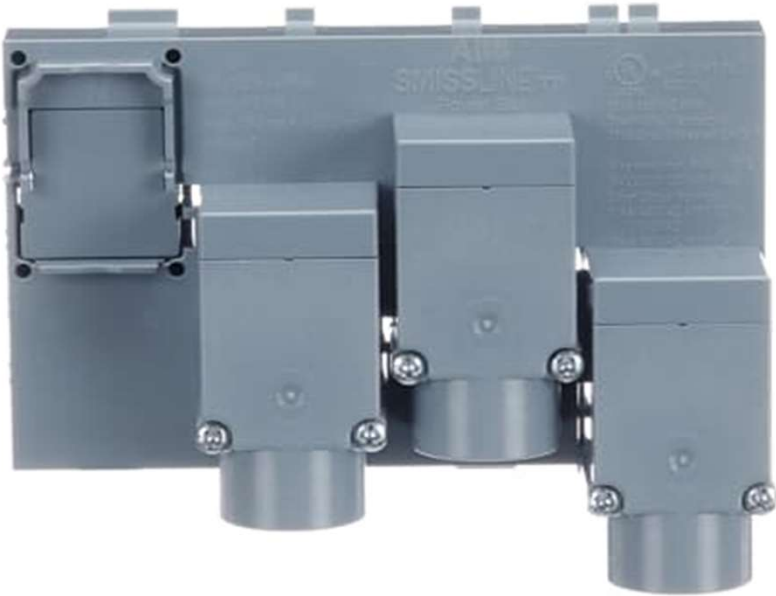




OTHER EQUIPMENTS - INCOMING BLOCK

PEP ecopassport®

Product Environmental Profile



Product Environmental Profile - PEP Ecopassport.
Document in compliance with ISO 14025: 2006 "Environmental labels and declarations. Type III environmental declarations"

ORGANIZATION		CONTACT INFORMATION			
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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.

The content of this PEP cannot be compared with content based on another program/software/database.



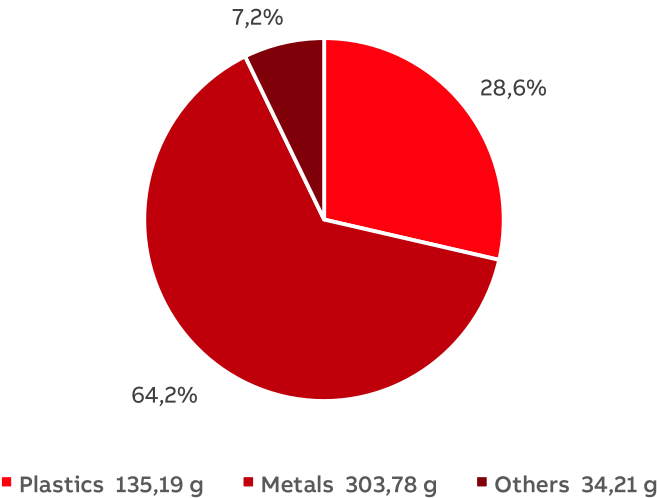
General Information

Reference product	ZLSP934-3L-1 - 2CCG000036R0001 INCOMING BLOCK
Description of the product	Incoming Block, providing a electrical connection for busbars in distribution systems: ZLSP934/5 can only used for the 250 A Power Bar System. ZLS924 & ZLS260 can be used for the 250A & 125A Power Bar Systems.
Functional unit	One SMISLINE – Incoming Block, providing a 250A electrical connec-tion for busbars in distribution systems, compatible with 50mm² to 150mm² or 4/0 AWG cables, with a reference service life of 20 years
Other products covered	ZLSP934 / ZLSP935 - Incoming block 250A (3L, 3LN) ZLS924 - Incoming block 125A & 250A (3L, 3LN & 3LN LA-LB) ZLS260 - Incoming block 63A (L1-L3, L2-N & LA-LB) Auxiliaries: additional covers, terminals & connection N-N List of other products covered on pages 11 to 14.

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Constituent Materials



Total weight of Reference product with packaging

473,18	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%
PC	28,6	CU	30,0	CARDBOARD	7,2
		STEEL	27,9	PAPER	0,1
		STAINLESS STEEL	6,3		

Total weight of product + packaging of one reference product: 473,18g. Total weight of one reference product without packaging is: 438,92 g

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Additional Environmental 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 of the packaged product from the manufacturer's last logistic platform to the distributor.
Installation	Includes the manual installation of the products made manually and the end-of-life of packaging.
Use	Energy consumption is calculated by following the PSR. The energy models used in this pahase are specific energy mixes based on ABB distribution. No maintenance is necessary. Reference product consumption over 20 years is 31,86 kWh.
End of life	Includes the transportation of the product to the final end-of-life treatment site and treatment processes. A value of 100 km transport by lorry is used for the transportation.
Benefits and loads beyond the system boundaries	Potential for reuse, recovery and/or recycling, expressed as net benefits and impacts.



Environmental Impacts

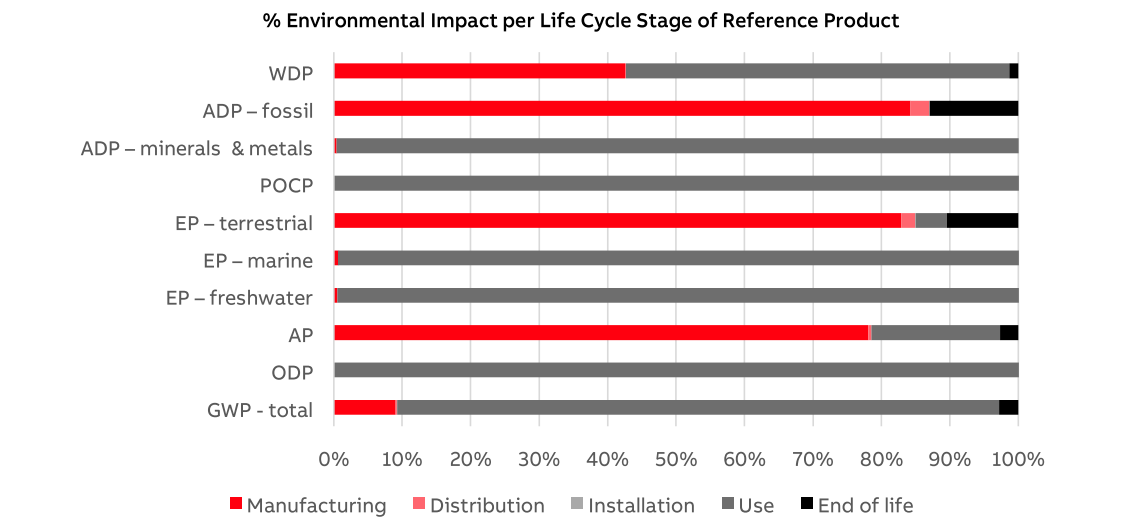
Reference lifetime	20 years
Product category	Other Equipments
Installation elements	Installation carried out manually. End of life of packaging.
Use scenario	Load time: 30% of rated current in continuous operation (In). Use time rate: 30% of reference lifetime (RLT).
Geographical representativeness	Global
Technological representativeness	Materials and processes data are specific for the production of Incoming block and its family
Software and database used	Simapro 9.5 and Ecoinvent 3.9

Energy model used

Manufacturing	Energy mix obtained from IEA data
Installation	Non-applicable
Use	Electricity, low voltage {CN} market group for Cut-off, U Electricity, low voltage {IE} market for Cut-off Electricity, low voltage {IN} market group for electricity, low voltage Cut-off, U Electricity, low voltage {SA} market for Cut-off, U Electricity, low voltage {SE} market for Cut-off, U Electricity, low voltage {SG} market for electricity, low voltage Cut-off, U Electricity, low voltage {US} market for Cut-off, U Electricity, low voltage {AU} market for Cut-off, U
End of life	Recycling of product and packaging

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Common base of mandatory indicators



Environmental impact indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Bene- fits
GWP-total	kg CO ₂ eq.	1,93E+00	1,41E+00	3,60E-02	5,80E-03	1,37E+01	4,35E-01	-2,80E+00
GWP-fossil	kg CO ₂ eq.	1,88E+00	1,41E+00	3,60E-02	8,56E-04	7,23E-07	4,34E-01	-2,81E+00
GWP-biogenic	kg CO ₂ eq.	5,10E-02	1,20E-03	3,63E-05	4,94E-03	4,43E-02	4,90E-04	3,45E-03
GWP-luluc	kg CO ₂ eq.	2,02E-03	1,06E-03	1,31E-05	3,97E-07	6,54E-04	2,93E-04	-2,66E-03
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.	2,13E-04	4,08E-08	8,58E-09	1,81E-10	2,13E-04	3,24E-08	-8,67E-08
ODP = Depletion potential of the stratospheric ozone layer								
AP	H+ eq.	3,87E-02	3,02E-02	1,60E-04	3,95E-06	7,28E-03	1,03E-03	-8,70E-02
AP = Acidification potential, Accumulated Exceedance								
EP-freshwater	kg P eq.	8,40E-02	4,42E-04	7,52E-07	2,24E-08	8,35E-02	7,68E-06	-1,18E-03
EP-marine	kg N eq.	2,22E-02	1,44E-04	2,45E-07	7,28E-09	2,21E-02	2,50E-06	-3,85E-04
EP-terrestrial	mol N eq.	2,29E-03	1,90E-03	4,77E-05	1,27E-06	1,05E-04	2,39E-04	-4,91E-03
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 NMVOC eq.	2,10E+02	2,51E-02	5,27E-04	1,38E-05	2,10E+02	2,60E-03	-6,72E-02
POCP = Formation potential of tropospheric ozone								
ADP-minerals & metals	kg Sb eq.	1,72E+00	7,35E-03	1,68E-04	3,99E-06	1,71E+00	8,20E-04	-1,94E-02
ADP-fossil	MJ	2,02E+01	1,70E+01	5,60E-01	1,22E-02	1,26E-07	2,61E+00	-3,28E+01
ADP-minerals & metals = Abiotic depletion potential for non-fossil resources ADP-fossil = Abiotic depletion for fossil resources potential								
WDP	m ³ eq. depr.	1,62E+00	6,89E-01	1,92E-03	1,74E-04	9,06E-01	2,13E-02	-1,78E+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	1,88E+01	1,88E+00	7,10E-03	2,18E-04	1,67E+01	1,78E-01	-5,44E+00
PERM	MJ	5,59E-02	5,59E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	1,88E+01	1,94E+00	7,10E-03	2,18E-04	1,67E+01	1,78E-01	-5,44E+00
PENRE	MJ	8,74E+01	1,62E+01	5,60E-01	1,22E-02	6,80E+01	2,61E+00	-3,28E+01
PENRM	MJ	7,85E-01	7,85E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	8,82E+01	1,70E+01	5,60E-01	1,22E-02	6,80E+01	2,61E+00	-3,28E+01
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 resources								

Inventory flows indicator – Indicators describing the use of secondary materials, water, and energy resources

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	m³	2,78E-02	1,72E-02	6,64E-05	5,78E-06	9,58E-03	9,58E-04	-4,36E-02
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	5,09E+01	2,89E-01	5,20E-02	3,77E-03	5,00E+01	5,45E-01	-1,14E+00
Non- hazardous waste disposed	kg	2,04E+02	2,82E-05	3,79E-06	7,83E-08	2,04E+02	1,58E-05	-6,16E-05
Radioactive waste disposed	kg	2,15E+00	1,94E+00	7,10E-03	2,18E-04	2,87E-02	1,78E-01	-5,44E+00

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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
Components 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	3,90E-01	3,97E-03	0,00E+00	2,79E-02	0,00E+00	3,58E-01	0,00E+00
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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

Inventory flow 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						
Biogenic carbon content of the associated packaging	kg of C	1,70E-02						

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Extrapolation Factors

For other products than the Reference product covered by this PEP, the environmental impacts for each phase of the lifecycle are obtained as explained below:

The value of the distribution phase and the use phase will vary depending on the market to which the product is to be sold.

250A

REFERENCES Main socket (M)	Manufacturing stage	Distribution stage	Installation stage	Use stage	End-of-life stage	Benefits
2CCG000036R0001	1	1	1	1	1	1
2CCG000038R0001	1,22	1,22	1	1	1,22	1,22
2CCG000039R0001	1	1	1	1	1	1
2CCG000041R0001	1,22	1,22	1	1	1,22	1,22

125A

REFERENCES Main socket (M)	Manufacturing stage	Distribution stage	Installation stage	Use stage	End-of-life stage	Benefits
2CCF181816R0001	0,32	0,43	0,4	1	0,32	0,32
2CCF181818R0001	0,38	0,43	0,4	1	0,38	0,38
2CCF181820R0001	0,43	0,43	0,4	1	0,43	0,43
2CCF181817R0001	0,32	0,43	0,4	1	0,32	0,32
2CCF181819R0001	0,38	0,43	0,4	1	0,38	0,38
2CCF181821R0001	0,43	0,43	0,4	1	0,43	0,43

63A

REFERENCES Main socket (M)	Manufacturing stage	Distribution stage	Installation stage	Use stage	End-of-life stage	Benefits
2CCA205305R0001	0,18	0,18	0,15	1	0,18	0,18
2CCA205306R0001	0,18	0,18	0,15	1	0,18	0,18
2CCA205307R0001	0,18	0,18	0,15	1	0,18	0,18

REFERENCES 250 A	Manufacturing stage	Distribution stage	Installation stage	Use stage	End-of-life stage	Benefits
Additional sockets (A)						
2CCG000042R0001	0.61	0.61	1	0.67	0.61	0.61
2CCG000043R0001	0.40	0.40	1	0.67	0.40	0.40
2CCG000046R0001	0.61	0.61	1	0.67	0.61	0.61
2CCG000047R0001	0.40	0.40	1	0.67	0.40	0.40
Covers for main Product (C.M)						
2CCG000051R0001	0.04	0.04	0.04	0	0.04	0.04
Connection N to N (N)						
2CCG000050R0001	0.16	0.16	0.16	0	0.16	0.16
Cover for wiring (C.W)						
2CCG000207R0001	0.07	0.07	0.07	0	0.07	0.07

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REFERENCES	Manufacturing stage	Distribution stage	Installation stage	Use stage	End-of-life stage	Benefits
125 A						
Spare parts						
2CCF181805R0001	0.06	0.06	1	0	0.06	0.06
2CCF181807R0001	0.02	0.02	1	0	0.02	0.02
2CCF181812R0001	0.06	0.06	1	0	0.06	0.06

To calculate the impact of the product and supplements use the following formula:

$$\text{Total impact} = M + A + C.M * n^2 \text{ of covers} + N * \text{number of connections} + C.W * n^2 \text{ of covers}$$

M=Main socket, A=Additional socket, C.M.=Cover of main product, N=Connection N to N, C.W=Cover for

The impact of principal indicator for the distribution stage is calculated with the following formula:

$$\text{Distribution stage impact} = R.I * E.F$$

Where: *R.I* = impact of selected category; *E.F* = extrapolation factor of chosen indicator

Always multiply by the same indicator, do not combine them.

Distribution stage category impacts	IE	CN	IN	SA	SG	SE	USA	AU
Climate change	1.00	82.01	0.11	30.50	75.06	1.15	44.00	96.16
Climate change - Fossil	1.00	82.09	0.11	30.53	75.14	1.15	44.05	96.25
Climate change - Biogenic	1.00	26.78	0.04	9.98	24.51	1.16	14.39	31.77
Climate change - Land use and LU change	1.00	13.06	0.02	4.88	11.95	1.13	7.03	15.76
Ozone depletion	1.00	78.31	0.10	29.13	71.68	1.15	42.02	91.85
Acidification	1.00	95.57	0.13	35.54	87.48	1.08	51.28	111.95
Eutrophication, freshwater	1.00	18.02	0.02	6.73	16.49	1.15	9.69	21.54
Eutrophication, marine	1.00	117.05	0.16	43.53	107.14	1.09	62.79	137.00
Eutrophication, terrestrial	1.00	116.19	0.16	43.20	106.35	1.09	62.33	136.00
Photochemical ozone formation	1.00	94.76	0.13	35.24	86.73	1.10	50.84	111.01
Resource use, minerals and metals	1.00	9.29	0.01	3.48	8.50	1.15	5.01	11.36
Resource use, fossils	1.00	73.92	0.10	27.50	67.66	1.15	39.67	86.73
Water use	1.00	14.72	0.02	5.50	13.47	1.15	7.92	17.70

The impact of principal indicator for the use stage is calculated with the following formula:

$$\text{Use stage impact} = R.I * E.F * \text{extrapolation factor of use stage}$$

Product Code	E.F
P block 250	1
P block 125 @125A	1,18
P block 125 @250A	3,45
P block 63 @125A	0,49
P block 63 @250A	1,42

Where: *R.I* = impact of selected category; *E.F* = extrapolation factor of chosen indicator.

Extrapolation factor of use stage of main socket selected and additional socket, cover or spare part.

Always multiply by the same indicator, do not combine them.

Use stage category impacts	IE	CN	IN	SA	SG	SE	USA	AU
Climate change	1.00	2.54	3.58	2.53	1.09	0.12	1.21	2.21
Climate change - Fossil	1.00	2.61	3.66	2.58	1.10	0.11	1.22	2.24
Climate change - Biogenic	1.00	-0.83	-0.97	0.06	0.48	0.23	0.37	0.39
Climate change - Land use and LU change	1.00	0.35	0.44	0.12	0.06	8.02	0.58	0.22
Ozone depletion	1.00	0.25	0.50	7.37	1.04	0.10	1.28	0.56
Acidification	1.00	4.17	5.51	4.86	0.41	0.23	1.25	3.23
Eutrophication, freshwater	1.00	3.50	14.57	0.28	0.29	0.37	6.25	25.47
Eutrophication, marine	1.00	5.20	5.92	4.27	0.65	0.24	0.99	3.13
Eutrophication, terrestrial	1.00	4.98	6.04	4.08	0.63	0.26	0.99	3.08
Photochemical ozone formation	1.00	4.88	5.91	4.61	0.70	0.23	1.12	3.04
Resource use, minerals and metals	1.00	1.00	1.08	1.07	0.93	0.96	1.00	1.09
Resource use, fossils	1.00	1.48	2.83	2.24	1.20	0.95	1.31	1.48
Water use	1.00	2.15	2.63	1.47	0.66	1.48	1.90	1.25

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Environmental Impact Indicator Glossary


Impact indicators

Indicator	Description	Distribution
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 ₂ 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 atmosphere, 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 emissions 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 unsustainable 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 ecosystems, building on the assumption that the less water remaining available per area, the more likely another user will be deprived.	m ³ eq. depr.

Resource use indicators

Indicator	Description	Distribution
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 re-sources (primary energy and primary energy resources used as raw materials)	MJ (lower heating value)

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Registration number: ABBG-00480-V01.01-EN	Drafting Rules: PCR-ed4-EN-2021 09 06 Supplemented by: PSR-0005-ed3-EN—2023 06 06
Verifier accreditation number: VH08	Information and reference documents: www.pep-ecopassport.org
Date of issue: 05-2024	Validity period: 5 years
Independent verification of the declaration and data, in compliance with ISO 14025: 2006	
Internal: <input type="radio"/>	External: <input checked="" type="radio"/>
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 or NE E38-500 :2022 The components of the present PEP may not be compared with elements from any other program.	
Document in compliance with ISO 14025: 2006 "Environmental labels and declarations. Type III environmental declarations"	
	

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