

R60 FRAME

PEP ecopassport®

Environmental Product Declaration



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

ORGANIZATION		CONTACT INFORMATION			
ABB Niessen		email			
ADDRESS		WEBSITE			
Aranguren Pol., 6, 20180 Oiartzun, Gipuzkoa		https://new.abb.com/es			
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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.

"other points or for example a QR code or link to ABB website, where more information on the topic"



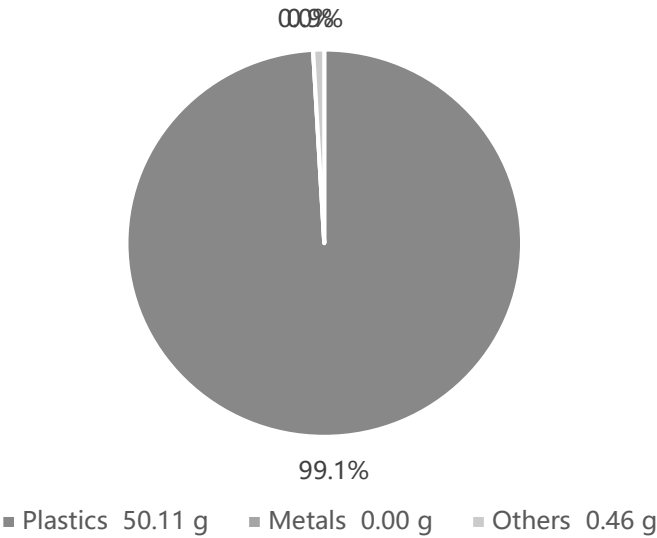
General Information

Reference product	R60 Frame 2CLA857100A1101
Description of the product	R60 Frames family products are a range of products which application is a cover frame. Under this family there are two subfamilies: Alba and Sky. All product references from this family are covered by the PEP. As a reference product, it has been chosen the R60 Blank cover plate 2CLA857100A1101, based on sales. The product is described as 8571 BL Frame 1-gang - Soft White 1gang(s) White Horizontal mounting - Sky Niessen. The product dimensions are 86 x 86 mm.
Functional unit	The functional unit is to Switch on and off during 20 years electrical power supply of a downstream installation with an electrical and/or mechanical control.
Other products covered	See list of covered references in page 10,11,12.

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Constituent Materials



Total weight of Reference product	50.59	g
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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%
ABS	55.3	–	–	Cartoon	0.9
Polycarbonate	43.5	–	–	–	–
Film PP	0.2	–	–	–	–



Additional Environmental Information

Manufacturing	The product is produced in ABB Niessen. ISO 14001 compliant plant. Using renewable energy: 8% wind and 92% solar thermoelectric. The energy supplier has guarantees of origin.
Distribution	From ABB Niessen manufacturing plant in Gipuzkoa to Spain (90%), Portugal (10%), other European regions (1%). The packaging are one carton box (92% recycled) and PP film.
Installation	The dismantling is done manually therefore there isn't energy consumption associated. It is included the packaging end-of-life.
Use	The product has no connection, therefore the energy consumption for the usage, is zero. The product does not require special maintenance operations.
End of life	The product falls within the scope of the WEEE directive (2012/19/EU). Therefore it must be processed through local WEEE recycling/recovery channels.
Benefits and loads beyond the system boundaries	Net benefits and loads from the recycling operations of the product calculated according to PCR ed 4 and formulas given in Annex G of the EN 50693.

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Environmental Impacts

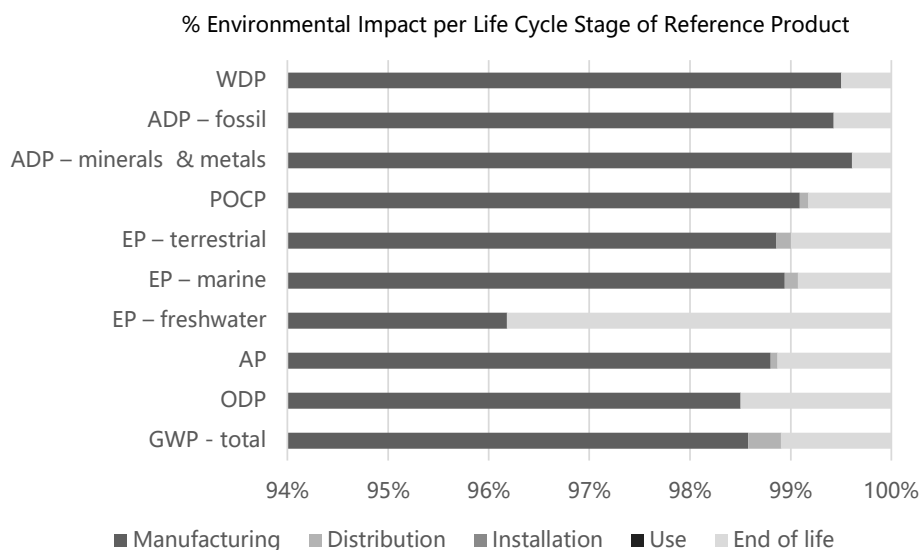
Reference lifetime	20 years
Product category	3.6. Contactors, remote control switch, combinations, starters
Installation elements	No installation accessory elements are required
Use scenario	Load rate: Not applicable Used time rate 30% of RLT
Geographical representativeness	Region covered: Europe
Technological representativeness	Specific data reflect the physical reality of the declared product since they have been provided by the manufacturer itself.
Software and database used	Software: Simapro 9.5.0.0 Database: Ecoinvent 3.9.1; Indsutry data 2.0.

Energy model used

Manufacturing	Spanish electricity medium voltage adapted to ABB Niessen renewable energy mix.
Installation	Not applicable
Use	Not applicable
End of life	Different datasets depending on waste process: natural gas CH or Europe; Electricity medium voltage GLO or Europe;

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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.	7.33E-01	7.22E-01	2.38E-03	8.45E-07	0.00E+00	8.04E-03	-1.79E-01
GWP-fossil	kg CO ₂ eq.	7.30E-01	7.19E-01	2.38E-03	1.24E-08	0.00E+00	8.00E-03	-1.77E-01
GWP-biogenic	kg CO ₂ eq.	2.98E-03	2.94E-03	1.75E-09	8.33E-07	0.00E+00	4.08E-05	-1.42E-03
GWP-luluc	kg CO ₂ eq.	2.13E-04	2.08E-04	5.92E-11	1.03E-11	0.00E+00	5.12E-06	-4.93E-05
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.	2.63E-08	2.59E-08	6.53E-14	3.10E-15	0.00E+00	3.95E-10	-6.57E-09
ODP = Depletion potential of the stratospheric ozone layer								
AP	H ⁺ eq.	1.43E-03	0.00E+00	9.54E-07	2.30E-10	0.00E+00	1.62E-05	-5.98E-04
AP = Acidification potential, Accumulated Exceedance								
EP-freshwater	kg P eq.	5.53E-06	2.08E-04	2.37E-12	3.01E-13	0.00E+00	2.11E-07	-3.43E-06
EP-marine	kg N eq.	3.58E-04	3.55E-04	4.73E-07	1.03E-10	0.00E+00	3.32E-06	-1.05E-04
EP-terrestrial	mol N eq.	3.61E-03	3.57E-03	5.17E-06	1.15E-09	0.00E+00	3.61E-05	-1.07E-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.	1.56E-03	1.55E-03	1.27E-06	2.99E-10	0.00E+00	1.29E-05	-5.22E-04
POCP = Formation potential of tropospheric ozone								
ADP-minerals & metals	kg Sb eq.	9.07E-08	9.04E-08	1.04E-13	3.10E-15	0.00E+00	3.54E-10	-3.92E-08
ADP-fossil	MJ	9.61E+00	9.56E+00	4.02E-05	1.25E-07	0.00E+00	5.49E-02	-3.52E+00
ADP-minerals & metals = Abiotic depletion potential for non-fossil resources ADP-fossil = Abiotic depletion for fossil resources potential								
WDP	m ³ eq. depr.	1.85E-01	1.84E-01	3.68E-08	5.37E-09	0.00E+00	9.23E-04	-9.30E-02
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	3.57E+00	3.56E+00	1.06E-07	8.84E-09	0.00E+00	4.02E-03	-6.07E-02
PERM	MJ	1.94E-01	1.94E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	3.76E+00	3.76E+00	1.06E-07	8.84E-09	0.00E+00	4.02E-03	-6.07E-02
PENRE	MJ	1.05E+01	1.04E+01	4.27E-05	1.33E-07	0.00E+00	5.84E-02	-3.79E+00
PENRM	MJ	5.62E-03	5.62E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	1.05E+01	1.04E+01	4.27E-05	1.33E-07	0.00E+00	5.84E-02	-3.79E+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 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	4.46E-03	4.43E-03	1.68E-09	3.58E-10	0.00E+00	3.15E-05	-2.27E-03
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	2.40E-05	2.38E-05	2.65E-10	5.16E-13	0.00E+00	2.23E-07	-2.06E-06
Non-hazardous waste disposed	kg	1.75E-01	1.69E-01	1.98E-09	4.78E-07	0.00E+00	6.41E-03	-5.05E-03
Radioactive waste disposed	kg	5.97E-06	5.88E-06	3.45E-12	2.01E-13	0.00E+00	9.21E-08	-1.48E-06

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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	1.12E-08	1.08E-08	2.05E-10	2.01E-15	0.00E+00	1.68E-10	-6.30E-09
Materials for recycling	kg	8.46E-03	8.32E-03	6.39E-09	2.90E-10	0.00E+00	1.42E-04	-1.99E-03
Materials for energy recovery	kg	5.54E+00	5.45E+00	3.00E-03	1.18E-06	0.00E+00	9.55E-02	-2.89E+00
Exported energy	MJ	1.79E-10	1.76E-10	5.68E-14	1.71E-16	0.00E+00	3.61E-12	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	9.91E-09	9.79E-09	2.53E-11	1.16E-15	0.00E+00	9.75E-11	-5.67E-09
Biogenic carbon content of the associated packaging	kg of C	1.65E-01	1.61E-01	7.64E-08	9.15E-08	0.00E+00	4.52E-03	-5.01E-02

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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	1.42E+01	1.42E+01	1.42E+01	4.28E-05	1.42E-07	6.24E-02	-3.85E+00
Ionizing radiation, human health	kBq U235 eq.	1.98E-01	1.98E-01	1.55E-01	0.00E+00	5.43E-04	4.23E-02	4.23E-02
Impact related to land use/soil quality		1.22E-04	1.22E-04	1.22E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00

kBq U235
eq.

Other indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Bene- fits
No Other indicators used								

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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 by multiplying the values of the Reference product by the following coefficients:

* if the coefficient is "1", the impacts of the phase of the life cycle are assimilated to the Reference product, meaning that the impacts are unchanged in comparison to the Reference product

Product name	Manu- facturing	Distri- bution	Installation	Use	End of life	Benefits
2CLA857100A1101	1.00	1.00	1.00	1.00	1.00	1.00
2CLA857100A3201	0.53	0.97	75.27	1.00	0.28	-0.06
2CLA857100A6301	0.28	0.97	59.60	2.00	0.28	0.28
2CLA857100A6201	0.28	0.97	59.60	2.00	0.28	0.28
2CLA857100A1301	0.52	0.54	2.09	2.00	0.52	0.52
2CLA857100A1901	0.52	0.54	2.09	2.00	0.52	0.52
2CLA857100A1501	0.52	0.54	2.09	2.00	0.52	0.52
2CLA857100A1401	0.78	2.30	8.82	1.00	2.20	-0.23
2CLA857100A1201	0.78	2.30	8.82	1.00	2.20	-0.23
2CLA857100A3001	0.53	0.97	75.27	1.00	0.28	-0.06
2CLA857100A3101	0.53	0.97	75.27	1.00	0.28	-0.06
2CLA857200A1401	1.57	4.60	17.63	2.00	4.40	-0.45
2CLA857200A1101	2.00	2.00	2.00	2.00	2.00	2.00
2CLA857200A3201	1.06	1.94	150.54	2.00	0.56	-0.12
2CLA857200A3001	1.06	1.94	150.54	2.00	0.56	-0.12
2CLA857200A1901	1.04	1.08	4.19	4.00	1.04	1.04
2CLA857200A3101	1.06	1.94	150.54	2.00	0.56	-0.12
2CLA857200A6201	0.56	1.94	119.21	4.00	0.56	0.56
2CLA857200A1501	1.04	1.08	4.19	4.00	1.04	1.04
2CLA857200A1201	1.57	4.60	17.63	2.00	4.40	-0.45
2CLA857200A1301	1.04	1.08	4.19	4.00	1.04	1.04
2CLA857200A6301	0.56	1.94	119.21	4.00	0.56	0.56
2CLA857300A1401	2.35	6.90	26.45	3.00	6.60	-0.68
2CLA857300A1101	3.00	3.00	3.00	3.00	3.00	3.00
2CLA857300A3201	1.58	2.91	225.81	3.00	0.84	-0.18
2CLA857300A3001	1.58	2.91	225.81	3.00	0.84	-0.18
2CLA857300A1901	1.56	1.61	6.28	6.00	1.56	1.56
2CLA857300A3101	1.58	2.91	225.81	3.00	0.84	-0.18
2CLA857300A6201	0.84	2.91	178.81	6.00	0.84	0.84
2CLA857300A1501	1.56	1.61	6.28	6.00	1.56	1.56
2CLA857300A1201	2.35	6.90	26.45	3.00	6.60	-0.68
2CLA857300A1301	1.56	1.61	6.28	6.00	1.56	1.56
2CLA857300A6301	0.84	2.91	178.81	6.00	0.84	0.84
2CLA857400A1401	3.13	9.20	35.27	4.00	8.80	-0.90
2CLA857400A1101	4.00	4.00	4.00	4.00	4.00	4.00
2CLA857400A3201	2.11	3.87	301.08	4.00	1.12	-0.23

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Extrapolation Factors

Product name	Manu- facturing	Distri- bution	Installation	Use	End of life	Benefits
2CLA857400A3001	2.11	3.87	301.08	4.00	1.12	-0.23
2CLA857400A1901	2.08	2.15	8.37	8.00	2.08	2.08
2CLA857400A3101	2.11	3.87	301.08	4.00	1.12	-0.23
2CLA857400A6201	1.12	3.87	238.41	8.00	1.12	1.12
2CLA857400A1501	2.08	2.15	8.37	8.00	2.08	2.08
2CLA857400A1201	3.13	9.20	35.27	4.00	8.80	-0.90
2CLA857400A1301	2.08	2.15	8.37	8.00	2.08	2.08
2CLA857400A6301	1.12	3.87	238.41	8.00	1.12	1.12
2CLA857500A1101	5.00	5.00	5.00	5.00	5.00	5.00
2CLA857500A1901	2.60	2.69	10.46	10.00	2.60	2.60
2CLA857500A6201	1.40	4.84	298.01	10.00	1.40	1.40
2CLA857500A1501	2.60	2.69	10.46	10.00	2.60	2.60
2CLA857500A1301	2.60	2.69	10.46	10.00	2.60	2.60
2CLA857500A6301	1.40	4.84	298.01	10.00	1.40	1.40
2CLA857110A1101	1.00	1.00	1.00	1.00	1.00	1.00
2CLA897100A1101	0.30	0.27	1.00	1.00	0.27	-0.06
2CLA897100A1001	0.30	0.27	1.00	1.00	0.27	-0.06
2CLA897100A1501	0.30	0.27	1.00	1.00	0.27	-0.06
2CLA897100A1801	0.30	0.27	1.00	1.00	0.27	-0.06
2CLA897100A3001	0.75	0.71	75.27	1.00	0.01	0.02
2CLA897100A3101	0.75	0.71	75.27	1.00	0.01	0.02
2CLA897100A1401	0.79	0.89	75.27	1.00	0.20	-0.01
2CLA897200A1101	0.60	0.55	2.00	2.00	0.53	-0.11
2CLA897200A1001	0.60	0.55	2.00	2.00	0.53	-0.11
2CLA897200A1501	0.60	0.55	2.00	2.00	0.53	-0.11
2CLA897200A1801	0.60	0.55	2.00	2.00	0.53	-0.11
2CLA897200A3001	1.49	1.41	150.54	2.00	0.03	0.04
2CLA897200A3101	1.49	1.41	150.54	2.00	0.03	0.04
2CLA897200A1401	1.59	1.78	150.54	2.00	0.40	-0.02
2CLA897300A1101	0.90	0.82	3.00	3.00	0.80	-0.17
2CLA897300A1001	0.90	0.82	3.00	3.00	0.80	-0.17
2CLA897300A1501	0.90	0.82	3.00	3.00	0.80	-0.17
2CLA897300A1801	0.90	0.82	3.00	3.00	0.80	-0.17
2CLA897300A3001	2.24	2.12	225.81	3.00	0.04	0.07
2CLA897300A3101	2.24	2.12	225.81	3.00	0.04	0.07
2CLA897300A1401	2.38	2.67	225.81	3.00	0.60	-0.03
2CLA897400A1101	1.19	1.09	4.00	4.00	1.06	-0.23
2CLA897400A1001	1.19	1.09	4.00	4.00	1.06	-0.23
2CLA897400A1501	1.19	1.09	4.00	4.00	1.06	-0.23
2CLA897400A1801	1.19	1.09	4.00	4.00	1.06	-0.23
2CLA897400A3001	2.99	2.83	301.08	4.00	0.06	0.09

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Extrapolation Factors

[illegible]

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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:	Drafting Rules:	PCR-ed4-EN-2021 09 06
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Verifier accreditation number:	Information and reference documents:	
VH08	www.pep-ecopassport.org	
Date of issue:	08-2023	Validity period: 5 years
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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