Product Environmental Profile

Product Environmental Profile

Steel wire cable trays : BFR HP

GEWISS S.p.A

Registration number : ***GWGS-00002-V01.01-FR***	Rules for writing : ***PCR-ed4-FR-20212021 09 06 & PSR-0003-ed2-EN-2023 06 06***
Verifier authorisation No **: *VH40***	Information and standards: **www.pep-ecopassport.org**
Publication date :**02-2024**	Period of validity: **5 years**
Independent verification of declaration and data in accordance with ISO 14025: 2010	
Internal : ☐	**External :** ☒
The PCR review was conducted by a panel of experts chaired by Julie ORGELET(DDemain)	
PEPs are compliant with EN 50693:2019 The components of the present PEP may not be compared with components from any other program	
Document in compliance with ISO 14025: 2010 «Environmental labels and declarations. Type III»	

Disclaimer

The information contained in this declaration is provided under the responsibility of GEWISS in accordance with standard NF EN ISO 14025, PCR-ed4-FR-2021 09 06 and PSR-0018-ed1.2-FR-2024 09 26.

Any use, in whole or in part, of the information provided in this document must at least be accompanied by the full reference of the original PEP and its producer, who will be able to provide a complete copy.

Reading instructions

The following display rules are used:
- Values are expressed in simplified scientific notation: 0.0038 = 3.80 x 10-3 = 3.80E-3 ;
- When the result of the inventory calculation is zero, the value zero is displayed;
- Non-zero values are expressed to 3 significant figures.

List of abbreviations used :
UD / DU : Unité Déclarée / Declared Unit
UF / FU : Unité Fonctionnelle / Unité Fonctionnelle / Functional Unit

General background

This declaration is an individual declaration covering the life cycle from cradle to grave (over the entire life cycle, with module D), produced at the request of the company GEWISS.

The declaration is available at the following addresses:
www.pep-ecopassport.org/fr/
www.inies.fr

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General information

Product category
Cable trays system

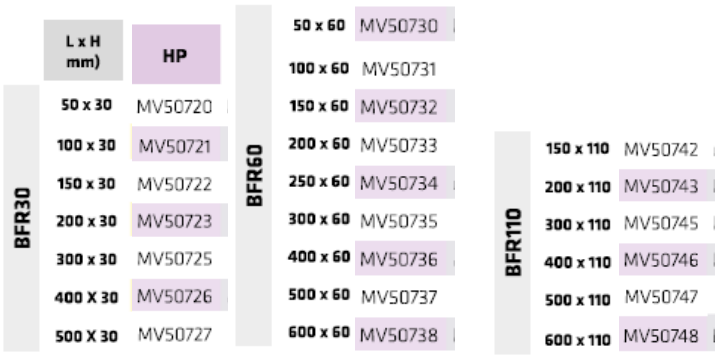
Functional Unit (FU) and Declared Unit (DU)
« To support cabling over 1 metre for a period of 20 years. The cable tray system, capable of supporting a load of 37.4 kg per metre for a span of 1.5 m, includes the profile, cable tray and support accessories representative of standard use»

Reference product
The reference product is the product whose commercial reference is: MV50733 (BFR HP Size 200 x 60)

Products belonging to the same environmental family

This PEP also covers the following products:

- All BFR HP range cable trays



Characteristics of the reference product

Product family	*Cable trays systems et cable ladder systems*
Subfamily	*Cable trays system*
Main function	*Cable support and guidance*
Relevant Standard	*Cable trays system : Norme EN 61537*
Manufacturing Site	*"Le Bouleau", 21430 Liernais, France*
Type of Cable trays	*welded steel wire cable tray (BFR)*
Range	*BFR with finish HP*
Zinc coating	*250 100 g zinc /m² steel*
Reference product	*MV50233*
Size	*W = 200 mm x H = 60 mm*
Main components (for 1m of cable tray)	*Long element (1m)* *Joining length elements (0.33 units)* *Angle with 90° change of plane (0.04 units)* *90° angle in plane (0.16 units)* *Bracket support (0.66 units)*

Mass of reference product

Unit	For a 3m cable tray	FU (1m)
Total mass (Product + Packaging + Additional elements) [kg]	*8,482*	*2,827*
Product mass [kg]	*8,195*	*2,732*
Packaging mass [kg]	*0,282*	*0,094*
Additional elements mass [kg]	*0,005*	*0,002*

Constituent materials

The constituent materials of the reference product and its packaging are :

Metals	%	Plastics	%	Other	%
Total	**96,66%**	**Total**	**0,03%**	**Total**	**3,31%**
Galvanised steel	96,66%	LDPE	0,03%	Wood	2,64%
				Cardboard	0,68%

Biogenic carbon content

Unit	For a 3m cable tray	FU (1m)
Biogenic carbon content of the product	0,00E+00 kg C	0,00E+00 kg C /UF
Biogenic carbon content of the packaging	1,23E-01 kg C	4,11E-02 kg C /UF

Life Cycle Assessment methodology

The life cycle analysis on which this Product Environmental Profile (PEP) is based complies with the criteria imposed by PCR-ed4-FR-2021 09 06 of the ecopassport® PEP Programme. The life cycle analysis was carried out using SIMAPRO software version V9.2.0.2 and Ecoinvent V3.7.1- system model: allocation, cut-off by classification. The lifetime is provided in paragraph 3.1.2. Reference product and reference flow description in PSR-0003-ed2-EN-2023 06 06. End-of-life modelling follows the default scenarios proposed in PSR-0003-ed2-EN-2023 06 06.

Geographical representativeness	The scenarios are representative of production, installation, use and end-of-life treatment in France.
Technological representativeness	The PEP is representative of a galvanised steel cable tray.

Lifecycle stages

Manufacturing stage, A1-A3

The product consists of the following elements:
- Components : BFR HP galvanised steel slit wire or strip for length elements, joining length elements, angles with 90° change of plane, 90° angle in the plane.
- Components: Support (including fasteners)
- Default packaging for components (50% wood, 40% cardboard, 10% LDPE)

The production of all these elements was included in the study.
Inbound transport was included in the study.
The production and treatment of production waste and packaging have also been taken into account.

The electricity energy models for assembly are: 'Electricity, medium voltage {FR}| market for | Cut-off, S'.

Distribution stage, A4

The distribution stage includes transport by 16-32t lorry of the packaged product from the manufacturer's last logistics platform to the distributor and then to the installation site.
The product is distributed and installed in France.
No repackaging has been considered in the modelling.

Parameter	Value
Distance	300 km

Installation stage , A5

The installation stage includes :
- Energy consumption due to the screwing of the cable trays. The electricity energy model is: 'Electricity, medium voltage {FR}| market for | Cut-off, U'.
- The supply of additional products (screws and clamps)
- Management of packaging waste during installation.

Use stages, B1-B7

Parameters B2	Value
Maintenance	The product requires no special maintenance

End of life stages, C1-C4

Uninstallation is carried out with electricity consumption (unscrewing) 'Electricity, medium voltage {FR}| market group for | Cut-off, U'.
The end-of-life of the product is modelled according to the default scenario for steel waste in PSR-0003-ed2-EN-2023 06 06.
The cable tray is transported over 100km before being 88% recycled and 12% buried.
All processing operations have been taken into account up to the point of substitution in accordance with the rules of PCR ed4.

Net profits and expenses beyond system boundaries (module D)

Module D includes the net benefits and costs of the installation and end-of-life stages, which have been modelled according to the PCR ed4 rules. The treatment of wood, plastic, cardboard and steel waste generates costs and benefits associated with the external supply of secondary materials and associated with the external supply of energy following the incineration of the waste.
The electricity energy model is 'Electricity, medium voltage {FR}| market group for | Cut-off, U'.
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Environmental impact results

In order to ensure consistency in the environmental impact results between the functional unit (1m) and the reference product (1 x 3m cable tray), the environmental impacts of the PEP for the reference product are calculated as follows:: $environmental\ impact\ of\ the\ functional\ unit * 3$

Environmental impact results per m corresponding to the functional unit (EN 15804+A2)

The impact results presented below were obtained using the methods defined in PCR-ed4-FR-2021 09 06.

Mandatory indicators PER FU

Indicators	Unit / FU	Manufacturing A1+A2+A3	Distribution A4	Installation A5	Use B1	Use B2	Use B3	Use B4	Use B5	Use B6	Use B7	Total Use B1+B2+B3+B4 +B5+B6+B7	End of life C1+C2 +C3+C4	Total Life Cycle	Module D
Climate change - total	kg CO2 eq	1,49E+01	7,36E-02	7,03E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,27E-01	1,61E+01	-4,25E-02
Climate change - fossil	kg CO2 eq	1,47E+01	7,35E-02	5,37E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,97E-01	1,58E+01	-6,93E-02
Climate change - biogenic	kg CO2 eq	8,35E-02	2,95E-05	1,65E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,97E-02	2,79E-01	2,68E-02
Climate change - land use and change	kg CO2 eq	3,60E-02	2,14E-05	1,15E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,92E-04	3,75E-02	-3,35E-05
Ozone depletion	kg CFC11 eq	1,03E-06	1,80E-08	4,51E-08	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,80E-08	1,13E-06	-3,16E-09
Acidification	mol H+ eq	6,09E-02	2,32E-04	2,16E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,53E-03	6,48E-02	-2,54E-04
Eutrophication, freshwater	kg P eq	8,82E-04	5,51E-07	2,93E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,81E-05	9,30E-04	-3,36E-06
Eutrophication, marine	kg N eq	1,30E-02	5,18E-05	4,77E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,56E-04	1,39E-02	-5,86E-05
Eutrophication, terrestrial	mol N eq	1,33E-01	5,75E-04	4,79E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,69E-03	1,42E-01	-6,35E-04
Photochemical ozone formation	kg NMVOC eq	5,37E-02	2,26E-04	1,94E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,91E-03	5,77E-02	-3,20E-04
Resource use, minerals and metals	kg Sb eq	2,43E-04	1,80E-07	7,96E-06	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,91E-06	2,53E-04	-1,16E-07
Resource use, fossils	MJ	1,85E+02	1,20E+00	6,86E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,70E+00	1,99E+02	-9,69E-01
Water use	m3 depriv.	6,42E+00	3,95E-03	2,22E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,13E-01	7,16E+00	-1,26E-02

Indicators	Unit / FU	Manufacturing A1+A2+A3	Distribution A4	Installation A5	Use B1	Use B2	Use B3	Use B4	Use B5	Use B6	Use B7	Total Use B1+B2+B3+B4 +B5+B6+B7	End of life C1+C2 +C3+C4	Total Life Cycle	Module D
Particulate matter	disease inc.	7,88E-07	6,42E-09	2,96E-08	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,39E-08	8,48E-07	-4,26E-09
Ionising radiation	kBq U-235 eq	7,34E-01	5,25E-03	2,76E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,59E-02	7,93E-01	-4,04E-03
Ecotoxicity, freshwater	CTUe	3,90E+02	9,19E-01	1,35E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,93E+00	4,14E+02	-1,61E+00
Human toxicity, cancer	CTUh	7,51E-08	2,81E-11	2,51E-09	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,58E-09	7,93E-08	-4,04E-10
Human toxicity, non-cancer	CTUh	3,12E-07	9,48E-10	1,09E-08	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,92E-09	3,30E-07	-1,38E-09
Land use	Pt	1,70E+02	2,12E+00	6,34E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,16E+00	1,82E+02	-1,21E+00
Renewable primary energy excl. RM	MJ, net CV	1,97E+01	1,46E-02	6,58E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,09E-01	2,08E+01	-1,55E-01
Renewable primary energy used as RM	MJ, net CV	1,05E+00	0,00E+00	-7,99E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,47E-01	0,00E+00
Total renewable primary energy	MJ, net CV	2,08E+01	1,46E-02	-1,41E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,09E-01	2,11E+01	-1,55E-01
Non renewable primary energy excl. RM	MJ, net CV	1,82E+02	1,20E+00	6,76E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,66E+00	1,95E+02	-6,67E-01
Non renewable primary energy used as RM	MJ, net CV	1,66E+00	0,00E+00	2,80E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,69E+00	-3,01E-01
Total non renewable primary energy	MJ, net CV	1,83E+02	1,20E+00	6,79E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,66E+00	1,97E+02	-9,67E-01
Use of secondary material	kg	5,30E-01	0,00E+00	1,64E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,46E-01	0,00E+00
Use of renewable secondary fuels	MJ, net CV	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non renewable secondary fuels	MJ, net CV	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Net use of fresh water	m3	2,03E-01	1,83E-04	7,01E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,36E-02	2,24E-01	-4,32E-04
Indicators	**Unit / FU**	**Manufacturing** A1+A2+A3	**Distribution** A4	**Installation** A5	**Use** B1	**Use** B2	**Use** B3	**Use** B4	**Use** B5	**Use** B6	**Use** B7	**Total Use** B1+B2+B3+B4 +B5+B6+B7	**End of life** C1+C2 +C3+C4	**Total Life Cycle**	**Module D**

Total use of primary energy during the life cycle	MJ, net CV	2,04E+02	1,21E+00	6,65E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,07E+00	2,18E+02	-1,12E+00
Hazardous waste disposed	kg	3,72E+00	7,74E-04	1,24E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,39E-02	3,93E+00	-7,95E-03
Non hazardous waste disposed	kg	2,10E+01	1,13E-01	8,00E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,44E-01	2,26E+01	-1,52E-01
Radioactive waste disposed	kg	7,16E-04	8,20E-06	2,87E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,54E-05	7,78E-04	-4,97E-06
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	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	4,12E-01	0,00E+00	8,35E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,51E+00	2,00E+00	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	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 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	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.	4,11E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,11E-02	0,00E+00

Environmental impact results by equipment corresponding to the reference product (a 3m cable tray) (EN 15804+A2)

Mandatory indicators PER EQUIPMENT

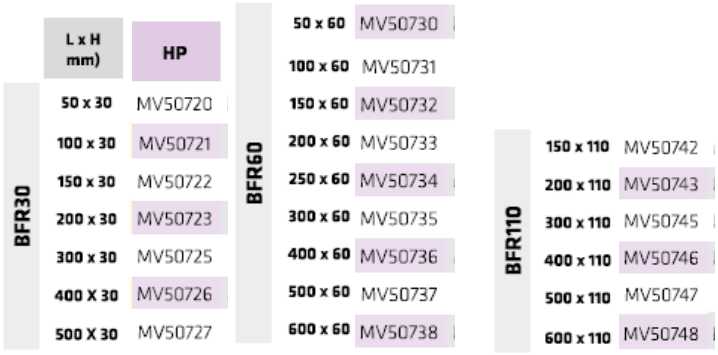
Indicators	Unit / FU	Manufacturing A1+A2+A3	Distribution A4	Installation A5	Use B1	Use B2	Use B3	Use B4	Use B5	Use B6	Use B7	Total Use B1+B2+B3+B4 +B5+B6+B7	End of life C1+C2 +C3+C4	Total Life Cycle	Module D
Climate change - total	kg CO2 eq	4,46E+01	2,21E-01	2,11E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,28E+00	4,82E+01	-1,27E-01
Climate change - fossil	kg CO2 eq	4,42E+01	2,21E-01	1,61E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,19E+00	4,73E+01	-2,08E-01
Climate change - biogenic	kg CO2 eq	2,50E-01	8,85E-05	4,96E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,91E-02	8,36E-01	8,05E-02
Climate change - land use and change	kg CO2 eq	1,08E-01	6,42E-05	3,45E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,76E-04	1,12E-01	-1,00E-04
Ozone depletion	kg CFC11 eq	3,10E-06	5,41E-08	1,35E-07	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,14E-07	3,40E-06	-9,48E-09
Acidification	mol H+ eq	1,83E-01	6,95E-04	6,48E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,58E-03	1,94E-01	-7,62E-04
Eutrophication, freshwater	kg P eq	2,65E-03	1,65E-06	8,78E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,42E-05	2,79E-03	-1,01E-05
Eutrophication, marine	kg N eq	3,90E-02	1,55E-04	1,43E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,07E-03	4,17E-02	-1,76E-04
Eutrophication, terrestrial	mol N eq	3,99E-01	1,72E-03	1,44E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,11E-02	4,26E-01	-1,90E-03
Photochemical ozone formation	kg NMVOC eq	1,61E-01	6,77E-04	5,82E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,72E-03	1,73E-01	-9,59E-04
Resource use, minerals and metals	kg Sb eq	7,30E-04	5,41E-07	2,39E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,73E-06	7,60E-04	-3,47E-07
Resource use, fossils	MJ	5,55E+02	3,59E+00	2,06E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,71E+01	5,96E+02	-2,91E+00
Water use	m3 depriv.	1,93E+01	1,18E-02	6,65E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,54E+00	2,15E+01	-3,77E-02

Indicators	Unit / FU	Manufacturing A1+A2+A3	Distribution A4	Installation A5	Use B1	Use B2	Use B3	Use B4	Use B5	Use B6	Use B7	Total Use B1+B2+B3+B4 +B5+B6+B7	End of life C1+C2 +C3+C4	Total Life Cycle	Module D
Particulate matter	disease inc.	2,37E-06	1,93E-08	8,87E-08	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,16E-08	2,54E-06	-1,28E-08
Ionising radiation	kBq U-235 eq	2,20E+00	1,58E-02	8,27E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,77E-02	2,38E+00	-1,21E-02
Ecotoxicity, freshwater	CTUe	1,17E+03	2,76E+00	4,05E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,98E+01	1,24E+03	-4,82E+00
Human toxicity, cancer	CTUh	2,25E-07	8,42E-11	7,54E-09	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,73E-09	2,38E-07	-1,21E-09
Human toxicity, non-cancer	CTUh	9,36E-07	2,84E-09	3,27E-08	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,78E-08	9,89E-07	-4,15E-09
Land use	Pt	5,09E+02	6,36E+00	1,90E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,25E+01	5,47E+02	-3,62E+00
Renewable primary energy excl. RM	MJ, net CV	5,92E+01	4,38E-02	1,97E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,23E+00	6,24E+01	-4,64E-01
Renewable primary energy used as RM	MJ, net CV	3,14E+00	0,00E+00	-2,40E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,41E-01	0,00E+00
Total renewable primary energy	MJ, net CV	6,23E+01	4,38E-02	-4,23E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,23E+00	6,32E+01	-4,64E-01
Non renewable primary energy excl. RM	MJ, net CV	5,46E+02	3,59E+00	2,03E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,70E+01	5,86E+02	-2,00E+00
Non renewable primary energy used as RM	MJ, net CV	4,99E+00	0,00E+00	8,41E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,07E+00	-9,02E-01
Total non renewable primary energy	MJ, net CV	5,50E+02	3,59E+00	2,04E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,70E+01	5,91E+02	-2,90E+00
Use of secondary material	kg	1,59E+00	0,00E+00	4,92E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,64E+00	0,00E+00
Use of renewable secondary fuels	MJ, net CV	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non renewable secondary fuels	MJ, net CV	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Net use of fresh water	m3	6,09E-01	5,49E-04	2,10E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,07E-02	6,71E-01	-1,30E-03

Indicators	Unit / FU	Manufacturing A1+A2+A3	Distribution A4	Installation A5	Use B1	Use B2	Use B3	Use B4	Use B5	Use B6	Use B7	Total Use B1+B2+B3+B4 +B5+B6+B7	End of life C1+C2 +C3+C4	Total Life Cycle	Module D
Total use of primary energy during the life cycle	MJ, net CV	6,12E+02	3,64E+00	1,99E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,82E+01	6,54E+02	-3,36E+00
Hazardous waste disposed	kg	1,12E+01	2,32E-03	3,72E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,52E-01	1,18E+01	-2,39E-02
Non hazardous waste disposed	kg	6,31E+01	3,38E-01	2,40E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,93E+00	6,78E+01	-4,56E-01
Radioactive waste disposed	kg	2,15E-03	2,46E-05	8,61E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,63E-05	2,34E-03	-1,49E-05
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	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	1,23E+00	0,00E+00	2,51E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,52E+00	6,01E+00	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	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 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	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.	1,23E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,23E-01	0,00E+00

Extrapolation rules

The references covered by the PEP are as follows:



The technical characteristics of these references are shown in the table below:

Technical characteristics per FU	
Product	*Cable trays system*
Function	*Cable support and guidance*
Type of Cable trays	*welded steel wire cable tray (BFR)*
Site of manufacture	*"Le Bouleau", 21430 Liernais, France*
Main components (for 1m of cable tray)	*Long element (1m)* *Joining length elements (0.33 units)* *Angle with 90° change of plane (0.04 units)* *90° angle in plane (0.16 units)* *Bracket support (0.66 units)*

	Range	Reference	Size (L ou B)	Size (H)	Masse of system cable trays / UF	Extrapolation factor
Characteristics of the products covered	BFR HP	MV50720	50 mm	BFR30	5,90E-01 kg	0,33
	BFR HP	MV50721	100 mm	BFR30	9,66E-01 kg	0,54
	BFR HP	MV50722	150 mm	BFR30	1,20E+00 kg	0,67
	BFR HP	MV50723	200 mm	BFR30	1,45E+00 kg	0,81
	BFR HP	MV50725	300 mm	BFR30	2,71E+00 kg	1,51
	BFR HP	MV50726	400 mm	BFR30	3,48E+00 kg	1,93
	BFR HP	MV50727	500 mm	BFR30	4,59E+00 kg	2,55
	BFR HP	MV50730	50 mm	BFR60	9,39E-01 kg	0,52
	BFR HP	MV50731	100 mm	BFR60	1,05E+00 kg	0,58
	BFR HP	MV50732	150 mm	BFR60	1,33E+00 kg	0,74

	BFR HP	MV50733	200 mm	BFR60	1,80E+00 kg	1,00
	BFR HP	MV50734	250 mm	BFR60	2,27E+00 kg	1,26
	BFR HP	MV50735	300 mm	BFR60	2,76E+00 kg	1,53
	BFR HP	MV50736	400 mm	BFR60	4,21E+00 kg	2,34
	BFR HP	MV50737	500 mm	BFR60	5,15E+00 kg	2,86
	BFR HP	MV50738	600 mm	BFR60	6,34E+00 kg	3,52
	BFR HP	MV50742	150 mm	BFR110	2,27E+00 kg	1,26
	BFR HP	MV50743	200 mm	BFR110	2,76E+00 kg	1,53
	BFR HP	MV50745	300 mm	BFR110	4,40E+00 kg	2,45
	BFR HP	MV50746	400 mm	BFR110	5,02E+00 kg	2,79
	BFR HP	MV50747	500 mm	BFR110	6,34E+00 kg	3,52
	BFR HP	MV50748	600 mm	BFR110	7,03E+00 kg	3,90

Extrapolation parameter

The different cable trays in the range have an identical life cycle, the only parameters that vary are the mass.

PSR-0003-ed2-FR-2023 06 06 specifies that ‘after a documented sensitivity study, it has been proven that the environmental impacts of these systems over phases A1 to C4 are globally proportional to their mass’. The extrapolation parameter is therefore as follows: Mass

The extrapolation coefficient to be applied to the Values of the environmental indicators =

$$\frac{\text{mass of the product system under consideration (kg)}}{\text{mass of the product system under consideration (kg)}}$$

With the reference product identified in dark colour in the previous table. The extrapolation coefficients were calculated in the previous table.

The extrapolation coefficients are given for the environmental impact of the functional unit, i.e. 1m. The environmental impact of a system covered by PEP Ecopassport® other than the reference system for which it was established, can be calculated by multiplying the Values of the environmental indicators by the corresponding extrapolation factor for each phase of the life cycle and the total of the life cycle.