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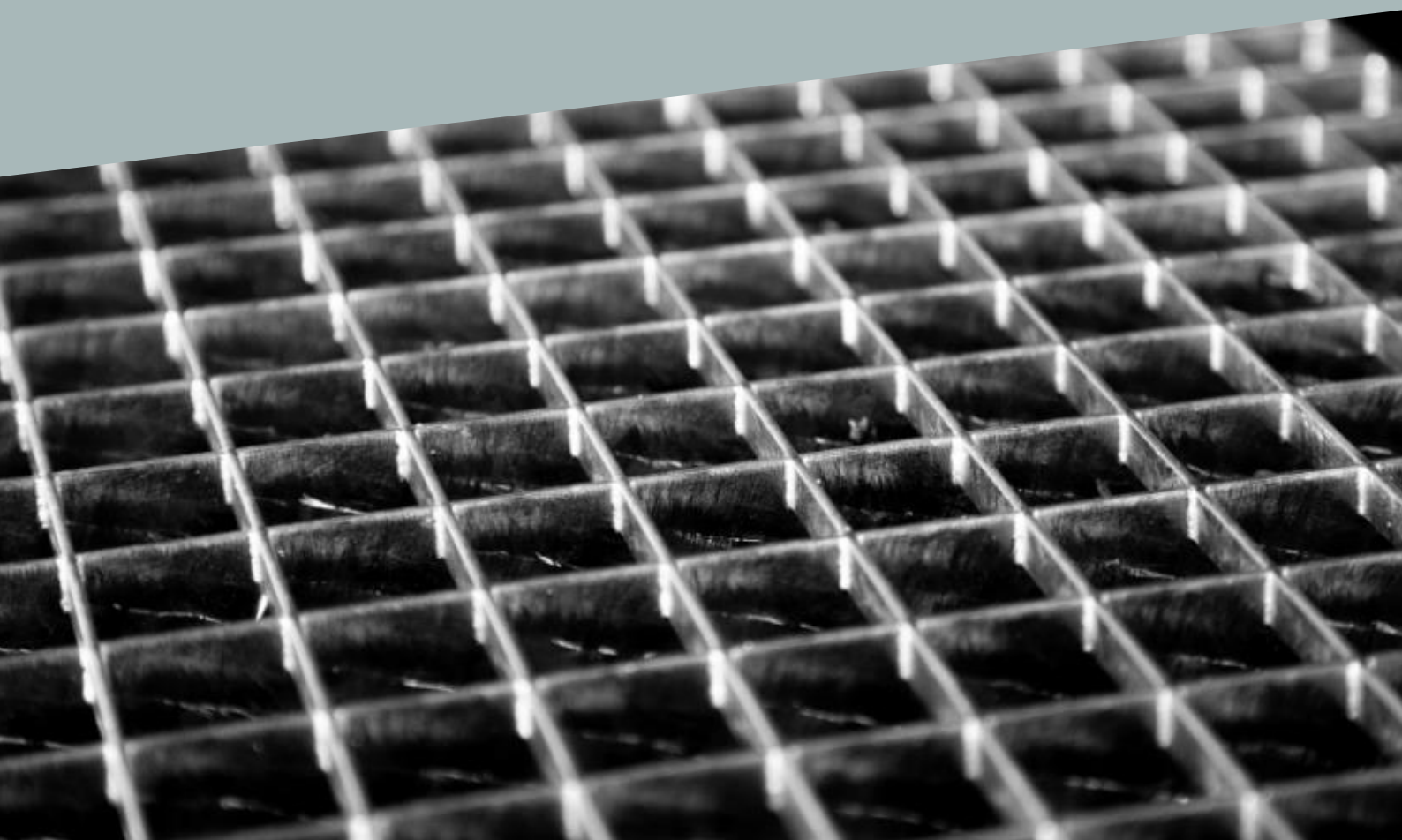
ECO PLATFORM EPD VERIFIED

Owner: PcP Danmark A/S
No.: MD-23182-EN
Issued: 07-02-2024
Valid to: 07-02-2029

3rd PARTY **VERIFIED**

EPD

VERIFIED ENVIRONMENTAL PRODUCT DECLARATION | **ISO 14025 & EN 15804**



Owner of declaration
PcP Danmark A/S
Sverigesvej 2-4, 7480 Vildbjerg,
Denmark
CVR nr.: 14 31 09 40

Programme
EPD Danmark
www.epddanmark.dk

☐ Industry EPD
☒ Product EPD

Declared product(s)
Steel and aluminium element products within the PcP mesh grating (gitterriste) product groups:

Group 1 - Steel:
- Steel 240 YP – Untreated,
- Steel HSS 420 – Untreated,
- Corten steel – Untreated; Pickled.

Group 2 - Galvanized steel:
- Steel 240 YP – Galvanized,
- Steel HSS 420 – Galvanized.

Group 3 - Stainless steel:
- AISI 304 – Untreated; Polished; Pickled,
- AISI 316 – Untreated; Polished; Pickled.

Group 4 - Aluminium:
- Aluminium 3005-16 H66 – Untreated; Washed.

Number of declared datasets/product variations: [4]

Production site
Sverigesvej 2-4, 7480 Vildbjerg, Denmark

Product(s) use
PcP Danmark A/S mesh grating is variation of thin, narrow slits, joined by press lock or press welded metal products that provides traction as stairs, platforms, scaffolding, and protective covering.

Declared unit
1 tonne of mesh grating

Year of production site data (A3)
2022

EPD version
First version – version 1.0

Issued: 07-02-2024
Valid to: 07-02-2029

Basis of calculation
This EPD is developed in accordance with the European standard EN 15804+A2.

Comparability
EPDs of construction products may not be comparable if they do not comply with the requirements in EN 15804. EPD data may not be comparable if the datasets used are not developed in accordance with EN 15804 and if the background systems are not based on the same database.

Validity
This EPD has been verified in accordance with ISO 14025 and is valid for 5 years from the date of issue.

Use
The intended use of an EPD is to communicate scientifically based environmental information for construction products, for the purpose of assessing the environmental performance of buildings.

EPD type
☒Cradle-to-gate with modules C1-C4 and D
☐Cradle-to-gate with options, modules C1-C4 and D
☐Cradle-to-grave and module D
☐Cradle-to-gate
☐Cradle-to-gate with options

CEN standard EN 15804 serves as the core PCR

Independent verification of the declaration and data, according to EN ISO 14025

☐ internal ☒ external

Third party verifier:

Linda Høibye

Martha Katrine Sørensen
EPD Danmark

Life cycle stages and modules (MND = module not declared)																
Product			Construction process		Use							End of life				Beyond the system boundary
Raw material supply	Transport	Manufacturing	Transport	Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Re-use, recovery and recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	MND	MND	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X

Product information

Product description

The PcP Danmark A/S mesh grating is manufactured in four main material variations – steel, galvanized steel, stainless steel, and aluminium with five different surface treatment variations depending on the type of used material. Therefore, all available product variations are grouped in four main groups that represents the total environmental impact of the specific product variation.

NB: This EPD does not include special gratings including round, half-round, oval etc. shapes as these gratings are cut from larger square gratings. Therefore, the production results in a larger amount of generated waste that the 1.5% which this EPD covers. If in doubt, please contact PcP Danmark A/S at info@PcP-corp.dk or at +(45) 97 13 12 00.

The main product components are shown in the table below.

Material	Weight-% of declared product			
	Group 1	Group 2	Group 3	Group 4
Steel	100	>96		
Galvanization		<4		
Stainless steel			100	
Aluminium				100

Product packaging:

The composition of the sales - and transport packaging of the product is shown in the table below. Plastic straps and steel straps are excluded from the assessment as it contributes insignificantly.

Material	Weight-% of packaging			
	Group 1	Group 2	Group 3	Group 4
Plastic straps		0.44		
Steel straps	0.52		0.52	0.52
EUR pallet	99.48	99.56	99.48	99.48

Representativity

This declaration, including data collection and the modelled foreground system including results, represents the production of a PcP Danmark A/S mesh grating product on the production site located in Vildbjerg, Denmark. Product specific data are based on values collected for the period of the year 2022. Background data are based on GaBi databases version 2023.1 and are less than 10 years old. Generally, the used background datasets are of high quality, and the majority of the datasets are only a couple of years old.

Hazardous substances

The PcP Danmark A/S mesh grating does not contain substances listed on the "Candidate List of Substances of Very High Concern for authorisation". Absence of these substances are declared by the producer.

(http://echa.europa.eu/candidate-list-table)

Essential characteristics

The PcP Danmark A/S' mesh grating is covered by harmonised technical specification/harmonized standard EN 1090-1:2009 A1:2011. Declaration of performance according to EU regulation 305/2011 is available for all declared product variations. The harmonized certification attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the harmonized standard.PcP Danmark A/S' mesh grating is certified according to ISO 9001:2015, EN 1090-1:2009 +A1:2012 and ISO 3834-2:2006 to ensure that they meet customers', authorities' and internal requirements and product expectations. Welding is carried out according to performance class 2 (EXC2) in both steel, stainless steel, and aluminium. Therefore, PcP Danmark A/S' mesh grating meets the requirements for CE certifications. Further technical information can be obtained by contacting the manufacturer or on the manufacturer's website:

https://www.pcp-corp.com/da/om-pcp/generelt/kvalitet-certificeringer

Reference Service Life (RSL)

According to EN 15804:2012+A2:2019, RSL is only mandatory for EPD's that include either use stage (B) or a functional unit. Therefore, RSL is not applicable in this EPD.

Picture of product(s)

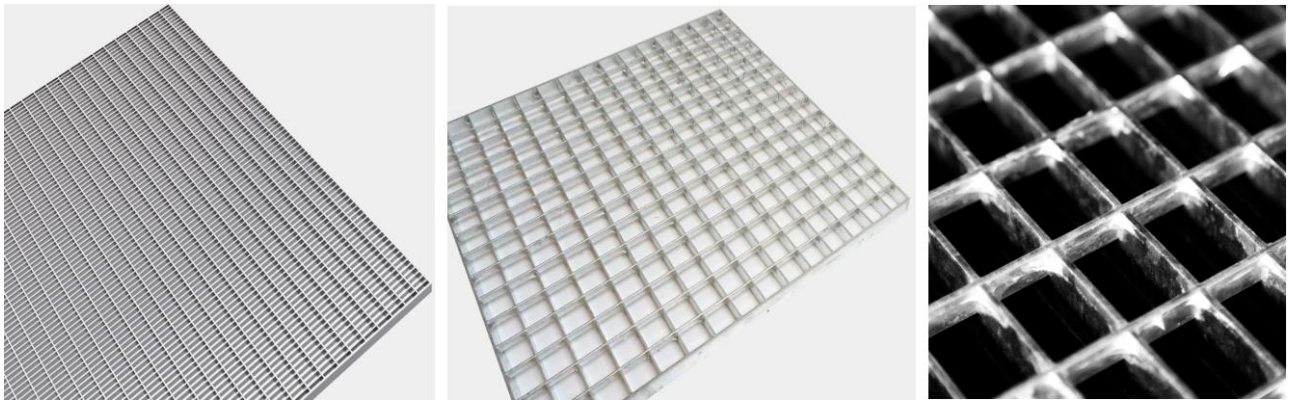


Figure 1: Example of mesh grating product from PcP Danmark A/S.

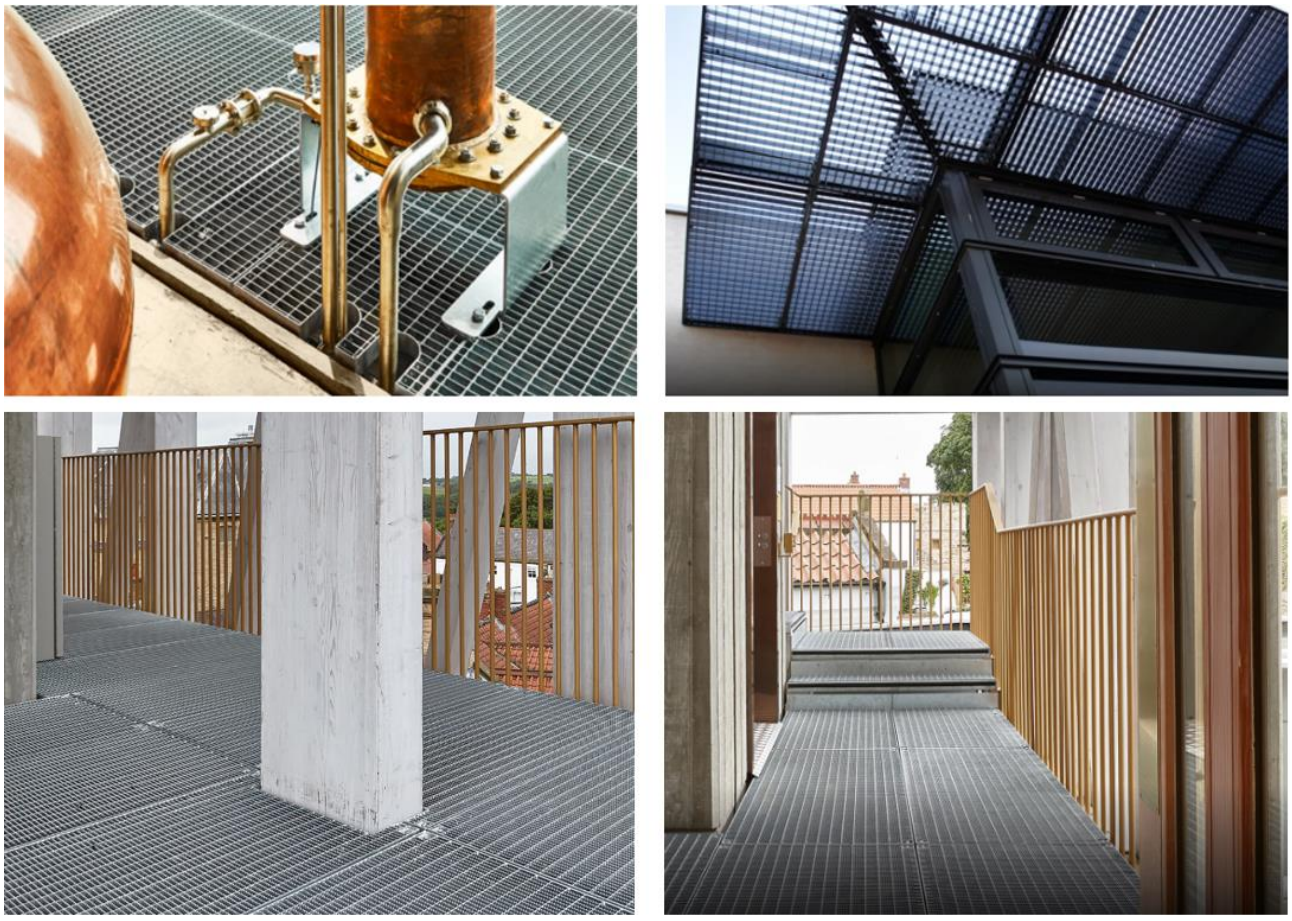


Figure 2: Example of product application.

LCA background

Declared unit

The LCI and LCIA results in this EPD relates to 1 tonne of PcP Danmark A/S mesh grating.

Name	Value	Unit
Declared unit	1	tonne
Density	n/a	n/a
Conversion factor to 1 kg.	-	-

The actual PcP Danmark A/S mesh grating products vary in size and weight depending on the design and customers choice. The results in this EPD are scaled from the total sold mass down to one tonne.

Name	Group 1	
	Value	Unit
Declared unit	1	tonne
Density	7100-7870	kg/m^3
Conversion factor to 1 kg.	0.00013	-

Name	Group 2	
	Value	Unit
Declared unit	1	tonne
Density	7100-7870	kg/m^3
Conversion factor to 1 kg.	0.00013	-

Name	Group 3	
	Value	Unit
Declared unit	1	tonne
Density	7850-8000	kg/m^3
Conversion factor to 1 kg.	0.00012	-

Name	Group 4	
	Value	Unit
Declared unit	1	tonne
Density	2710	kg/m^3
Conversion factor to 1 kg.	0.00036	-

Functional unit

Not defined

PCR

This EPD is developed according to the core rules for the product category of construction products in EN 15804:2012+A2:2019, NPCR Part A v2.0 2021: Construction products and services, NPCR Part B v3.0 2019: Steel and aluminium construction products.

Geographical area

The set geographical boundary is Denmark.

Allocation

Allocation method used at supplier (raw materials) in module A1 is based on mass and economic value according to data from GaBi/LCA for Experts. Allocation method used at subcontractor in module A1 is based on mass.
A conservative approach is used in module A3 by allocating environmental impacts to the main product (= the declared unit).

Guarantee of Origin – certificates

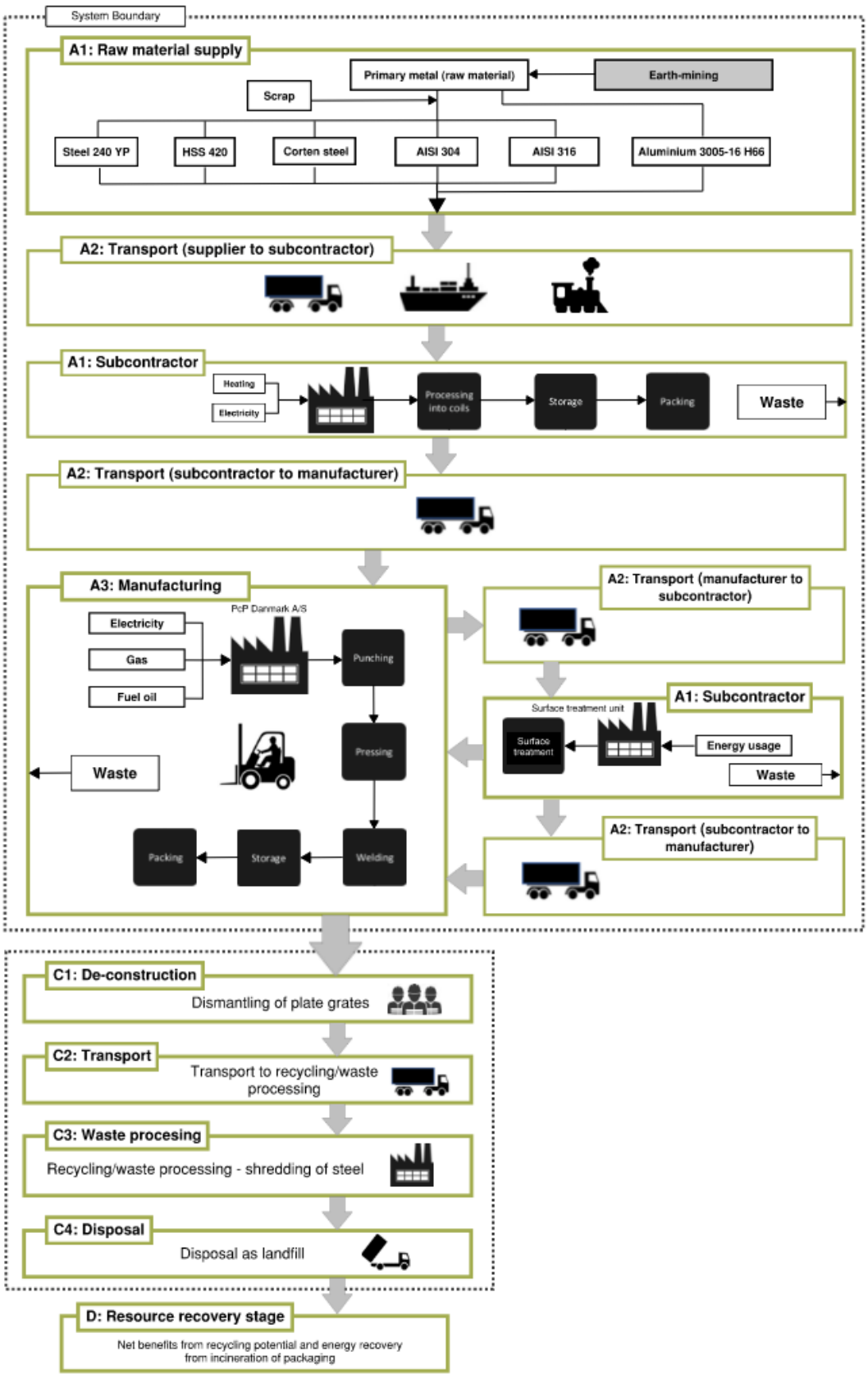
Foreground system: The product is produced without the use of energy covered by GO. Instead, the energy processes are modelled using the residual grid mix for Denmark with data from 2020.
Background system: Upstream and downstream processes are modelled using the electricity sources, which the applied datasets are based on without the use of certified green energy.
Upstream processes in A1 are modelled using electricity grid mix with reference year 2018. Residual grid mix is applied in A3 with data from reference year of 2020 as followed. Downstream processes are modelled using electricity grid mix in Denmark with data from 2018.

Cut-off criteria

The study includes all major raw material and energy consumption. The general rule is in compliance with the rules in EN 15804:2012+A2:2019, 6.3.5, where the cut-off criteria shall be 1% of renewable and non-renewable primary energy usage and 1% of the total mass input of that unit process. The module specific total neglected input and output flows do not exceed 5% of energy usage or mass:

- Plastic straps used in packaging system.
- Steel straps used in packaging system.
- Lubrication used in the manufacturing process at PcP Danmark A/S.

Flow diagram



System boundary

Key assumptions for the system boundary are described in each life cycle phase. The LCA for this product specific EPD has been completed based on scenario that expresses different environmental effects in the end-of-life stage (C1-C4), and potential benefits in module D, which is out of the system boundaries.

Product stage (A1-A3) includes:

A1 – Extraction and processing of raw materials
A2 – Transport to the production site
A3 – Manufacturing processes

The product stage comprises the acquisition of materials present in the PcP Danmark A/S mesh grating products, along with raw materials, other products and energy, transport to the production site, packaging, and waste processing up to the "end of-waste" state or final disposal.

The LCA results are declared in aggregated form for the product stage, which means, that the submodules A1, A2 and A3 are declared as one module A1-A3.

The PcP Danmark A/S' mesh grating products are manufactured using primarily pre-manufactured components, such as steel, galvanized steel, stainless steel, and aluminium components as coils with various surface treatments, where the narrow slits of coils are cut to length, gathered, and laid out, and either joined by force (press-locked) or welded together (press-welded). All products originate from coils, and are cut to length, punched, and bent using the same production method, using similar machines and similar tools, with very little variation in resource consumption. Up to 1.5% waste is accumulated per 1 tonne of product.

Manufacturing of components upstream (A1) are modelled using database processes that are representative of the full production of the component, including the extraction and processing of raw materials, transport, and manufacturing. The PcP Danmark A/S mesh grating products are sold in Denmark, which is the set geographical boundary.

End of Life (C1-C4) includes:

C1 – De-construction, demolition
C2 – Transport to waste processing
C3 – Waste processing for reuse, recovery and/or recycling
C4 – Disposal

The end of life of the PcP Danmark A/S mesh grating products starts with deconstruction using only non-electric hand-operated tools as the most common scenario. In accordance with this, the contribution from energy use of deconstruction phase has been deemed to be insignificant and is excluded from the EPD.

After deconstruction the complete product is sent to a metal recycler where it is shredded and sorted.

Any processes required to reach end-of-waste criteria for the materials are included in module C3.

Table 1: End-of-Life scenario for product Group 1

End-of-Life Scenario, Denmark	Proportion of declared product (%)
Recycling	95
Landfilling	5

Reference: World Steel Association, 2021 report.

Table 2: End-of-Life scenario for product Group 2

End-of-Life Scenario, Denmark	Proportion of declared product (%)
Recycling	98
Landfilling	2

Reference: EPD-ARM-20170139-IBD1-EN.

Table 3: End-of-Life scenario for product Group 3

End-of-Life Scenario, Denmark	Proportion of declared product (%)
Recycling	92
Landfilling	8

Reference: NPCR 013 v.3.0 Part B – Steel and aluminium products, 2019.

Table 4: End-of-Life scenario for product Group 4

End-of-Life Scenario, Denmark	Proportion of declared product (%)
Recycling	95
Landfilling	5

Reference: Sadeleer, I., Brekke, A. and Booto, G. (2020): Background report for the Environmental Product Declarations for Hydro Aluminium Holmestrand.

Re-use, recovery, and recycling potential (D) includes:

D – Reuse, recovery, and/or recycling potentials, expressed as net impacts and benefits. Waste handling potential for recycling and incineration from the early modules A1-A3 is excluded as described in standard EN 15804 6.3.5.2.

To calculate the amount of net-scrap for credit in module D, the input of scrap steel has been deducted from the amount of steel for recycling. The credit is calculated as the difference between production of new primary steel using the blast furnace route (BF) and production of secondary steel from scrap using the electric arc furnace route (EAF). This model assumption takes into account the difference in production routes.

Note

It should be noted that the uptake of the biogenic carbon from the packaging material (EUR pallet of wood) in module A3 is usually released again in module A5, but module A5 is not declared in

this EPD. The uptake of biogenic carbon in A3 from the packaging material is very small in relation to the total climate change indicator for A1-A3. Therefore, the incineration of packaging takes place in module C3.

Furthermore, the grouping of product into product groups (Group 1, Group 2, Group 3, and Group 4) is done following the +/- 10% rule in accordance with General Programme Instructions for EPD Danmark (v2.0 2020). Simple average method is applied for Group 2 and Group 4, while mixed worst case method is applied for Group 1 and Group 3. It is only the module A1-A3 that has a variation between the products, whereas modules C1-C4, and D is the same across the products.

It should be noticed that a few impact indicators varied more than +10% between the single products (difference between highest and average impact) within Group 1 and Group 3. For these groups results have been declared from the products with the highest impacts as mixed worst case scenario. Results for the Group 2 and Group 4 is declared as a simple average, as the difference between the highest and average impact within the single product is lower than 10%.

LCA results

The tables below cover the environmental impacts from 1 tonne of the PcP Danmark A/S mesh grating products group: Steel – Group 1, Galvanized steel – Group 2, Stainless steel – Group 3, Aluminium – Group 4.

PcP Danmark A/S mesh grating steel product group – Group 1

ENVIRONMENTAL IMPACTS PER 1 TONNE OF STEEL PRODUCT GROUP 1							
Parameter	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	[kg CO_2 eq.]	2.41E+03	0.00E+00	2.58E+00	3.53E+00	3.65E-02	-1.61E+03
GWP-fossil	[kg CO_2 eq.]	2.43E+03	0.00E+00	2.60E+00	3.51E+00	3.76E-02	-1.61E+03
GWP-biogenic	[kg CO_2 eq.]	-2.39E+01	0.00E+00	-3.62E-02	2.39E+01	-1.25E-03	-3.86E-01
GWP-luluc	[kg CO_2 eq.]	5.97E-01	0.00E+00	2.37E-02	1.29E-02	1.17E-04	-6.10E-01
ODP	[kg CFC 11 eq.]	5.87E-10	0.00E+00	2.24E-13	8.18E-12	9.66E-14	-1.01E-09
AP	[mol H^+ eq.]	5.18E+00	0.00E+00	3.51E-03	1.38E-02	2.66E-04	-3.77E+00
EP-freshwater	[kg P eq.]	8.73E-04	0.00E+00	9.35E-06	7.03E-06	7.59E-08	-1.22E-03
EP-marine	[kg N eq.]	1.17E+00	0.00E+00	1.27E-03	6.42E-03	6.88E-05	-9.20E-01
EP-terrestrial	[mol N eq.]	1.25E+01	0.00E+00	1.51E-02	7.09E-02	7.57E-04	-9.93E+00
POCP	[kg NMVOC eq.]	4.23E+00	0.00E+00	3.06E-03	1.73E-02	2.08E-04	-3.15E+00
ADPm[1]	[kg Sb eq.]	1.03E-03	0.00E+00	1.65E-07	2.86E-06	1.74E-09	-6.33E-05
ADPf[1]	[MJ]	2.42E+04	0.00E+00	3.49E+01	5.18E+01	5.00E-01	-1.36E+04
WDP[1]	[m^3 world eq. deprived]	2.23E+02	0.00E+00	2.96E-02	5.71E-01	4.11E-03	-2.14E+01
Caption	GWP-total = Global Warming Potential - total; 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 = Ozone Depletion; AP = Acidifcation; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water depletion potential						
	The numbers are declared in scientific notation, fx 1.95E+02. This number can also be written as: $1.95*10^2$ or 195, while 1.12E-11 is the same as $1.12*10^{-11}$ or 0,0000000000112.						
Disclaimer							

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 TONNE OF STEEL PRODUCT GROUP 1							
Parameter	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	7.70E-05	0.00E+00	2.77E-08	2.62E-07	3.28E-09	-5.47E-05
IRP[2]	[kBq U235 eq.]	2.28E+01	0.00E+00	6.52E-03	4.69E-02	6.39E-04	-6.95E+00
ETP-fw[1]	[CTUe]	3.65E+03	0.00E+00	2.43E+01	3.69E+01	2.76E-01	-2.63E+03
HTP-c[1]	[CTUh]	1.16E-06	0.00E+00	4.95E-10	8.23E-10	4.20E-11	-2.22E-06
HTP-nc[1]	[CTUh]	2.82E-05	0.00E+00	2.62E-08	4.19E-08	4.62E-09	-5.21E-06
SQP[1]	-	4.69E+03	0.00E+00	1.45E+01	1.31E+01	1.26E-01	-8.38E+02
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)						
	The numbers are declared in scientific notation, fx 1.95E+02. This number can also be written as: $1.95*10^2$ or 195, while 1.12E-11 is the same as $1.12*10^{-11}$ or 0.0000000000112.						
Disclaimers	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.						
	[2] This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.						

RESOURCE USE PER 1 TONNE OF STEEL PRODUCT GROUP 1							
Parameter	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	7.39E+02	0.00E+00	2.47E+00	5.74E+00	8.18E-02	-7.70E+02
PERM	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	[MJ]	7.39E+02	0.00E+00	2.47E+00	5.74E+00	8.18E-02	-7.70E+02
PENRE	[MJ]	2.42E+04	0.00E+00	3.50E+01	5.18E+01	5.00E-01	-1.37E+04
PENRM	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	[MJ]	2.42E+04	0.00E+00	3.50E+01	5.18E+01	5.00E-01	-1.37E+04
SM	[kg]	1.57E+02	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
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	[m^3]	5.72E+00	0.00E+00	2.72E-03	1.60E-02	0.00E+00	-2.05E+00
Caption	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; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water						

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 TONNE OF STEEL PRODUCT GROUP 1							
Parameter	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	4.92E-07	0.00E+00	1.29E-10	-5.35E-10	1.08E-11	3.95E-07
NHWD	[kg]	9.94E+01	0.00E+00	5.04E-03	1.29E-01	2.50E+00	-2.04E+01
RWD	[kg]	1.00E-01	0.00E+00	4.52E-05	4.39E-04	5.62E-06	-7.64E-02
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	3.53E+01	0.00E+00	0.00E+00	8.01E+02	0.00E+00	0.00E+00
MER	[kg]	0.00E+00	0.00E+00	0.00E+00	6.66E-01	0.00E+00	0.00E+00
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy						
	The numbers are declared in scientific notation, fx 1.95E+02. This number can also be written as: $1.95*10^2$ or 195, while 1.12E-11 is the same as $1.12*10^{-11}$ or 0.0000000000112.						

BIOGENIC CARBON CONTENT PER 1 TONNE OF STEEL PRODUCT GROUP 1		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	kg C	0.00E+00
Biogenic carbon content in accompanying packaging	kg C	6.52E+00
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO2	

PcP Danmark A/S mesh grating galvanized steel product group – Group 2

ENVIRONMENTAL IMPACTS PER 1 TONNE OF GALVANIZED STEEL PRODUCT GROUP 2							
Parameter	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	[kg CO_2 eq.]	2.64E+03	0.00E+00	2.58E+00	3.53E+00	1.46E-02	-1.74E+03
GWP-fossil	[kg CO_2 eq.]	2.66E+03	0.00E+00	2.60E+00	3.51E+00	1.50E-02	-1.74E+03
GWP-biogenic	[kg CO_2 eq.]	-2.39E+01	0.00E+00	-3.62E-02	2.39E+01	-4.99E-04	-4.17E-01
GWP-luluc	[kg CO_2 eq.]	6.79E-01	0.00E+00	2.37E-02	1.29E-02	4.67E-05	-6.60E-01
ODP	[kg CFC 11 eq.]	5.96E-10	0.00E+00	2.24E-13	8.18E-12	3.86E-14	-1.09E-09
AP	[mol H^+ eq.]	6.06E+00	0.00E+00	3.51E-03	1.38E-02	1.07E-04	-4.08E+00
EP-freshwater	[kg P eq.]	1.10E-03	0.00E+00	9.35E-06	7.03E-06	3.03E-08	-1.32E-03
EP-marine	[kg N eq.]	1.46E+00	0.00E+00	1.27E-03	6.42E-03	2.75E-05	-9.96E-01
EP-terrestrial	[mol N eq.]	1.56E+01	0.00E+00	1.51E-02	7.09E-02	3.03E-04	-1.07E+01
POCP	[kg NMVOC eq.]	4.93E+00	0.00E+00	3.06E-03	1.73E-02	8.31E-05	-3.41E+00
ADPm[1]	[kg Sb eq.]	1.50E-02	0.00E+00	1.65E-07	2.86E-06	6.95E-10	-6.85E-05
ADPf[1]	[MJ]	2.77E+04	0.00E+00	3.49E+01	5.18E+01	2.00E-01	-1.47E+04
WDP[1]	[m^3 world eq. deprived]	7.24E+02	0.00E+00	2.96E-02	5.71E-01	1.65E-03	-2.31E+01
Caption	GWP-total = Globale Warming Potential - total; 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 = Ozone Depletion; AP = Acidifcation; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water depletion potential						
	The numbers are declared in scientific notation, fx 1.95E+02. This number can also be written as: $1.95*10^2$ or 195, while 1.12E-11 is the same as $1.12*10^{-11}$ or 0,0000000000112.						
Disclaimer							

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 TONNE OF GALVANIZED STEEL PRODUCT GROUP 2							
Parameter	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	7.69E-05	0.00E+00	2.77E-08	2.62E-07	1.31E-09	-5.92E-05
IRP[2]	[kBq U235 eq.]	2.99E+01	0.00E+00	6.52E-03	4.69E-02	2.56E-04	-7.52E+00
ETP-fw[1]	[CTUe]	4.78E+03	0.00E+00	2.43E+01	3.69E+01	1.09E-01	-2.84E+03
HTP-c[1]	[CTUh]	1.42E-06	0.00E+00	4.95E-10	8.23E-10	1.68E-11	-2.40E-06
HTP-nc[1]	[CTUh]	3.70E-05	0.00E+00	2.62E-08	4.19E-08	1.85E-09	-5.64E-06
SQP[1]	-	4.96E+03	0.00E+00	1.45E+01	1.31E+01	5.04E-02	-9.06E+02
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)						
	The numbers are declared in scientific notation, fx 1.95E+02. This number can also be written as: $1.95*10^2$ or 195, while 1.12E-11 is the same as $1.12*10^{-11}$ or 0.0000000000112.						
Disclaimers	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.						
	[2] This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.						

RESOURCE USE PER 1 TONNE OF GALVANIZED STEEL PRODUCT GROUP 2							
Parameter	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	1.31E+03	0.00E+00	2.47E+00	5.74E+00	3.27E-02	-8.33E+02
PERM	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	[MJ]	1.31E+03	0.00E+00	2.47E+00	5.74E+00	3.27E-02	-8.33E+02
PENRE	[MJ]	2.77E+04	0.00E+00	3.50E+01	5.18E+01	2.00E-01	-1.48E+04
PENRM	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	[MJ]	2.77E+04	0.00E+00	3.50E+01	5.18E+01	2.00E-01	-1.48E+04
SM	[kg]	1.16E+02	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
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	[m^3]	1.77E+01	0.00E+00	2.72E-03	1.60E-02	0.00E+00	-2.22E+00
Caption	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; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water						

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 TONNE OF GALVANIZED STEEL PRODUCT GROUP 2							
Parameter	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	3.29E-06	0.00E+00	1.29E-10	-5.35E-10	4.31E-12	4.27E-07
NHWD	[kg]	1.12E+02	0.00E+00	5.04E-03	1.29E-01	1.00E+00	-2.21E+01
RWD	[kg]	9.18E-02	0.00E+00	4.52E-05	4.39E-04	2.25E-06	-8.26E-02
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	3.53E+01	0.00E+00	0.00E+00	8.66E+02	0.00E+00	0.00E+00
MER	[kg]	0.00E+00	0.00E+00	0.00E+00	6.66E-01	0.00E+00	0.00E+00
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy						
	The numbers are declared in scientific notation, fx 1.95E+02. This number can also be written as: $1.95*10^2$ or 195, while 1.12E-11 is the same as $1.12*10^{-11}$ or 0.0000000000112.						

BIOGENIC CARBON CONTENT PER 1 TONNE OF GALVANIZED STEEL PRODUCT GROUP 2		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	kg C	0.00E+00
Biogenic carbon content in accompanying packaging	kg C	6.52E+00
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO2	

PcP Danmark A/S mesh grating stainless steel product group – Group 3

ENVIRONMENTAL IMPACTS PER 1 TONNE OF STAINLESS STEEL PRODUCT GROUP 3							
Parameter	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	[kg CO_2 eq.]	3.66E+03	0.00E+00	2.58E+00	3.53E+00	5.83E-02	-8.39E+02
GWP-fossil	[kg CO_2 eq.]	3.69E+03	0.00E+00	2.60E+00	3.51E+00	6.01E-02	-8.39E+02
GWP-biogenic	[kg CO_2 eq.]	-2.39E+01	0.00E+00	-3.62E-02	2.39E+01	-1.99E-03	2.74E-01
GWP-luluc	[kg CO_2 eq.]	7.49E+00	0.00E+00	2.37E-02	1.29E-02	1.87E-04	-6.22E-01
ODP	[kg CFC 11 eq.]	5.27E-10	0.00E+00	2.24E-13	8.18E-12	1.54E-13	-2.85E-09
AP	[mol H^+ eq.]	2.48E+01	0.00E+00	3.51E-03	1.38E-02	4.26E-04	-6.87E+00
EP-freshwater	[kg P eq.]	4.66E-03	0.00E+00	9.35E-06	7.03E-06	1.21E-07	-1.01E-03
EP-marine	[kg N eq.]	3.54E+00	0.00E+00	1.27E-03	6.42E-03	1.10E-04	-6.56E-01
EP-terrestrial	[mol N eq.]	3.87E+01	0.00E+00	1.51E-02	7.09E-02	1.21E-03	-7.28E+00
POCP	[kg NMVOC eq.]	1.06E+01	0.00E+00	3.06E-03	1.73E-02	3.32E-04	-2.09E+00
ADPm[1]	[kg Sb eq.]	1.95E-01	0.00E+00	1.65E-07	2.86E-06	2.78E-09	-5.55E-02
ADPf[1]	[MJ]	4.86E+04	0.00E+00	3.49E+01	5.18E+01	8.00E-01	-9.71E+03
WDP[1]	[m^3 world eq. deprived]	1.67E+03	0.00E+00	2.96E-02	5.71E-01	6.58E-03	-1.85E+02
Caption	GWP-total = Globale Warming Potential - total; 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 = Ozone Depletion; AP = Acidifcation; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water depletion potential						
	The numbers are declared in scientific notation, fx 1.95E+02. This number can also be written as: $1.95*10^2$ or 195, while 1.12E-11 is the same as $1.12*10^{-11}$ or 0,0000000000112.						
Disclaimer							

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 TONNE OF STAINLESS STEEL PRODUCT GROUP 3							
Parameter	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	4.27E-04	0.00E+00	2.77E-08	2.62E-07	5.24E-09	-1.20E-04
IRP[2]	[kBq U235 eq.]	2.04E+02	0.00E+00	6.52E-03	4.69E-02	1.02E-03	-1.84E+01
ETP-fw[1]	[CTUe]	2.45E+04	0.00E+00	2.43E+01	3.69E+01	4.36E-01	-3.92E+03
HTP-c[1]	[CTUh]	4.59E-04	0.00E+00	4.95E-10	8.23E-10	6.72E-11	-3.32E-04
HTP-nc[1]	[CTUh]	5.69E-05	0.00E+00	2.62E-08	4.19E-08	7.39E-09	-2.45E-05
SQP[1]	-	1.80E+04	0.00E+00	1.45E+01	1.31E+01	2.02E-01	-1.71E+03
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)						
	The numbers are declared in scientific notation, fx 1.95E+02. This number can also be written as: $1.95*10^2$ or 195, while 1.12E-11 is the same as $1.12*10^{-11}$ or 0.0000000000112.						
Disclaimers	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.						
	[2] This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.						

RESOURCE USE PER 1 TONNE OF STAINLESS STEEL PRODUCT GROUP 3							
Parameter	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	1.02E+04	0.00E+00	2.47E+00	5.74E+00	1.31E-01	-1.99E+03
PERM	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	[MJ]	1.02E+04	0.00E+00	2.47E+00	5.74E+00	1.31E-01	-1.99E+03
PENRE	[MJ]	4.86E+04	0.00E+00	3.50E+01	5.18E+01	8.01E-01	-9.71E+03
PENRM	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	[MJ]	4.86E+04	0.00E+00	3.50E+01	5.18E+01	8.01E-01	-9.71E+03
SM	[kg]	7.87E+02	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
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	[m^3]	5.69E+01	0.00E+00	2.72E-03	1.60E-02	0.00E+00	-4.95E+00
Caption	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; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water						

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 TONNE OF STAINLESS STEEL PRODUCT GROUP 3							
Parameter	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	2.31E-01	0.00E+00	1.29E-10	-5.35E-10	1.72E-11	1.85E-08
NHWD	[kg]	1.53E+02	0.00E+00	5.04E-03	1.29E-01	4.00E+00	-1.22E+02
RWD	[kg]	1.90E+00	0.00E+00	4.52E-05	4.39E-04	9.00E-06	-1.79E-01
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	1.50E+01	0.00E+00	0.00E+00	2.53E+02	0.00E+00	0.00E+00
MER	[kg]	0.00E+00	0.00E+00	0.00E+00	6.66E-01	0.00E+00	0.00E+00
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy						
	The numbers are declared in scientific notation, fx 1.95E+02. This number can also be written as: $1.95*10^2$ or 195, while 1.12E-11 is the same as $1.12*10^{-11}$ or 0.0000000000112.						

BIOGENIC CARBON CONTENT PER 1 TONNE OF STAINLESS STEEL PRODUCT GROUP 3		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	kg C	0.00E+00
Biogenic carbon content in accompanying packaging	kg C	6.52E+00
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO2	

PcP Danmark A/S mesh grating aluminium product group – Group 4

ENVIRONMENTAL IMPACTS PER 1 TONNE OF ALUMINIUM PRODUCT GROUP 4							
Parameter	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	[kg CO_2 eq.]	9.09E+03	0.00E+00	2.58E+00	3.53E+00	2.39E+00	-9.11E+02
GWP-fossil	[kg CO_2 eq.]	9.12E+03	0.00E+00	2.60E+00	3.51E+00	2.42E+00	-9.09E+02
GWP-biogenic	[kg CO_2 eq.]	-2.39E+01	0.00E+00	-3.62E-02	2.39E+01	-2.77E-02	-1.90E+00
GWP-luluc	[kg CO_2 eq.]	2.72E+00	0.00E+00	2.37E-02	1.29E-02	2.38E-03	-2.44E-01
ODP	[kg CFC 11 eq.]	9.39E-09	0.00E+00	2.24E-13	8.18E-12	3.86E-12	-6.19E-10
AP	[mol H^+ eq.]	4.18E+01	0.00E+00	3.51E-03	1.38E-02	7.50E-03	-4.36E+00
EP-freshwater	[kg P eq.]	4.60E-03	0.00E+00	9.35E-06	7.03E-06	2.12E-06	-3.94E-04
EP-marine	[kg N eq.]	6.23E+00	0.00E+00	1.27E-03	6.42E-03	1.88E-03	-6.21E-01
EP-terrestrial	[mol N eq.]	6.79E+01	0.00E+00	1.51E-02	7.09E-02	2.07E-02	-6.77E+00
POCP	[kg NMVOC eq.]	1.90E+01	0.00E+00	3.06E-03	1.73E-02	5.90E-03	-1.89E+00
ADPm[1]	[kg Sb eq.]	4.47E-04	0.00E+00	1.65E-07	2.86E-06	6.40E-08	-4.26E-05
ADPf[1]	[MJ]	1.20E+05	0.00E+00	3.49E+01	5.18E+01	3.49E+01	-1.17E+04
WDP[1]	[m^3 world eq. deprived]	1.32E+03	0.00E+00	2.96E-02	5.71E-01	-3.18E-02	-1.37E+02
Caption	GWP-total = Globale Warming Potential - total; 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 = Ozone Depletion; AP = Acidifcation; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water depletion potential						
	The numbers are declared in scientific notation, fx 1.95E+02. This number can also be written as: $1.95*10^2$ or 195, while 1.12E-11 is the same as $1.12*10^{-11}$ or 0,0000000000112.						
Disclaimer							

ADDITIONAL ENVIRONMENTAL IMPACTS PER 1 TONNE OF ALUMINIUM PRODUCT GROUP 4							
Parameter	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	4.70E-04	0.00E+00	2.77E-08	2.62E-07	8.09E-08	-4.88E-05
IRP[2]	[kBq U235 eq.]	1.42E+03	0.00E+00	6.52E-03	4.69E-02	6.01E-02	-1.43E+02
ETP-fw[1]	[CTUe]	4.04E+04	0.00E+00	2.43E+01	3.69E+01	9.93E+00	-3.14E+03
HTP-c[1]	[CTUh]	5.01E-06	0.00E+00	4.95E-10	8.23E-10	1.23E-09	-5.24E-07
HTP-nc[1]	[CTUh]	1.04E-04	0.00E+00	2.62E-08	4.19E-08	1.23E-07	-9.78E-06
SQP[1]	-	1.28E+04	0.00E+00	1.45E+01	1.31E+01	3.26E+00	-4.47E+02
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)						
	The numbers are declared in scientific notation, fx 1.95E+02. This number can also be written as: $1.95*10^2$ or 195, while 1.12E-11 is the same as $1.12*10^{-11}$ or 0.0000000000112.						
Disclaimers	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.						
	[2] This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.						

RESOURCE USE PER 1 TONNE OF ALUMINIUM PRODUCT GROUP 4							
Parameter	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	5.25E+04	0.00E+00	2.47E+00	5.74E+00	3.14E+00	-5.28E+03
PERM	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	[MJ]	5.25E+04	0.00E+00	2.47E+00	5.74E+00	3.14E+00	-5.28E+03
PENRE	[MJ]	1.20E+05	0.00E+00	3.50E+01	5.18E+01	3.50E+01	-1.18E+04
PENRM	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	[MJ]	1.20E+05	0.00E+00	3.50E+01	5.18E+01	3.50E+01	-1.18E+04
SM	[kg]	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
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	[m^3]	1.26E+02	0.00E+00	2.72E-03	1.60E-02	3.94E-04	-1.33E+01
Caption	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; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water						

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 TONNE OF ALUMINIUM PRODUCT GROUP 4							
Parameter	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	6.11E-06	0.00E+00	1.29E-10	-5.35E-10	2.89E-09	-5.71E-07
NHWD	[kg]	2.53E+03	0.00E+00	5.04E-03	1.29E-01	5.01E+01	-2.69E+02
RWD	[kg]	6.98E+00	0.00E+00	4.52E-05	4.39E-04	4.06E-04	-6.82E-01
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	2.13E+01	0.00E+00	0.00E+00	9.50E+02	0.00E+00	0.00E+00
MER	[kg]	0.00E+00	0.00E+00	0.00E+00	6.66E-01	0.00E+00	0.00E+00
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy						
	The numbers are declared in scientific notation, fx 1.95E+02. This number can also be written as: $1.95*10^2$ or 195, while 1.12E-11 is the same as $1.12*10^{-11}$ or 0.0000000000112.						

BIOGENIC CARBON CONTENT PER 1 TONNE OF ALUMINIUM PRODUCT GROUP 4		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	kg C	0.00E+00
Biogenic carbon content in accompanying packaging	kg C	6.52E+00
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO2	

Additional information

LCA interpretation

LCIA are relative expressions and do not predict impacts category endpoints, the exceeding of thresholds, safety margins or risks.

The table below shows the processes contributing the most to the specific impact categories, and how much they contribute to the given impact category. The major contribution of the environmental impacts categories occurs in the product stage (A1-A3). Here the production of the raw materials is crucial.

Based on weight PcP Danmark A/S' mesh gratings consist of 100% steel, galvanized steel, stainless steel, or aluminium depending on the product type, and the data environmental impacts highly reflects the environmental impacts of the production of aforementioned materials. Generic database includes inputs such raw materials extraction (f.x. coal, iron, ore) and its processing (f.x. scrap, coke making, sinter, blast furnace, basic oxygen furnace, electric arc furnace, hit strip mill). Outputs are steel and its co-products, emissions to air, water, and land.

Impact category	Unit	Total	Dominant	% Category	Process
GWP-total	[kg CO2 eq.]	4.46E+03	2.50E+03	56.03	A1: Raw material
GWP-fossil	[kg CO2 eq.]	4.48E+03	2.49E+03	55.66	A1: Raw material
GWP-biogenic	[kg CO2 eq.]	-5.41E+01	2.39E+01	44.21	C3: Incineration
GWP – luluc	[kg CO2 eq.]	1.49E+00	4.42E-01	29.73	A1: Raw material
ODP	[kg CFC 11 eq.]	5.93E-09	5.56E-10	9.37	A3: Manufacturing
AP	[mol H+ eq.]	1.01E+01	5.64E+00	55.65	A1: Raw material
EP – fresh water	[kg P eq.]	1.26E-03	9.60E-04	76.10	A1: Raw material
EP - marine	[kg N eq.]	2.43E+00	1.29E+00	52.98	A1: Raw material
EP – terrestrial	[mole of N eq.]	2.61E+01	1.36E+01	52.27	A1: Raw material
POCP	[kg NMVOC eq.]	8.17E+00	4.45E+00	54.48	A1: Raw material
ADP – mm	[kg Sb eq.]	1.50E-02	1.50E-02	99.83	A1: Raw material
ADP – fossils	[MJ]	4.12E+04	2.52E+04	61.11	A1: Raw material
WDP	[m³]	7.50E+02	7.22E+02	96.25	A1: Raw material

The production of primary materials alone accounts for approximately 84% of the environmental impacts in 11 out of 13 impact categories. The most dominant module is therefore module A1, as this module includes the production of aforementioned materials.

The main contribution to the environmental impacts in module A3 is the electricity and heat consumption for the manufacturing of mesh grating at the PcP Danmark A/S' manufacturing site in Denmark. In module A3 the highest environmental impacts are seen in the indicator's climate change fossils and resource use fossils. The negative environmental impact for GWP biogenic is caused by wood and wood-based materials used in for packaging system of mesh grating in module A3.

Technical information on scenarios

Reference service life

RSL information		Unit
Reference service Life	Not relevant	Years
Declared product properties	Information on the technical characteristics, design, and construction guidelines, as well as conditions during use can be found on the website of PcP at www.pcp-corp.com	
Design application parameters		
Assumed quality of work		
Outdoor environment		
Indoor environment		
Usage conditions		
Maintenance		

End of life (C1-C4)

Scenario information	**Group 1**	**Group 2**	**Group 3**	**Group 4**	Unit
Collected separately	1000	1000	1000	1000	kg
Collected with mixed waste	0	0	0	0	kg
For reuse	0	0	0	0	kg
For recycling	950	980	920	950	kg
For energy recovery	16.6	16.6	16.6	16.6	kg
For final disposal	50	20	80	50	kg
Assumptions for scenario development	All parts of PcP Danmark A/S product reach its End-of-life, and it is sent for recycling. This includes the recycling potential rate of 92% to 98%, which means that the rest 2% to 8% is sent for final disposal depending on the material type.				As appropriate

Re-use, recovery, and recycling potential (D)

Scenario information/Materiel	**Group 1**	**Group 2**	**Group 3**	**Group 4**	Unit
Materials recovered from recycling	800.66	866.42	253	950	kg
Electricity produced from waste incineration	0.935	0.935	0.935	0.935	MJ
Thermal energy produced from waste incineration	1.75	1.75	1.75	1.75	MJ

Indoor air

The EPD does not give information on release of dangerous substances to indoor air because the horizontal standards on the relevant measurements are not available. Read more in EN15804+A1 chapter 7.4.1.

Any additional performance certifications are available upon request from manufacturer, or at the following link:

https://www.pcp-corp.com

Soil and water

The EPD does not give information on release of dangerous substances to soil and water because the horizontal standards on the relevant measurements are not available. Read more in EN15804+A1 chapter 7.4.2.

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LCA-practitioner	*Edvinas Damukaitis, Greta Szefer, Lasse Hagerup* *Frandsen & Søndergaard K/S* *Voergårdvej 8,* *DK-9200 Aalborg* *https://frandsen-sondergaard.dk/*
LCA software /background data	Sphera LCA for Experts vers. 10.7, professional database, extension database XIV: construction materials, data on demand, version 2023.1
3rd party verifier	*Linda Høibye* *Life Cycle Assessment Consulting* *e-mail: hoeibye@gmail.com*

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