

This appendix refers to the EPD MD-23181-EN, developed according to EN15804+A2:2019. Results in the appendix communicates LCA results in the format described in EN15804+A1:2013, in order to accommodate a need in the transition period between the two standard revisions. The appendix cannot stand alone, as the reference EPD describes the basis of the assessment.

PcP Danmark A/S punched-hole 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	[kg CO ₂ -eq.]	2.23E+03	0.00E+00	2.52E+00	3.44E+00	3.55E-02	-1.60E+03
ODP	[kg CFC11-eq.]	7.21E-10	0.00E+00	2.64E-13	9.63E-12	1.14E-13	-1.19E-09
AP	[kg SO ₂ -eq.]	4.18E+00	0.00E+00	2.50E-03	9.64E-03	2.12E-04	-3.03E+00
EP	[kg PO ₄ ³⁻ -eq.]	3.90E-01	0.00E+00	5.55E-04	2.25E-03	2.41E-05	-3.19E-01
POCP	[kg ethene-eq.]	8.41E-01	0.00E+00	-2.62E-04	1.07E-03	1.60E-05	-5.33E-01
ADPE	[kg Sb-eq.]	8.79E-04	0.00E+00	1.66E-07	2.86E-06	1.77E-09	-6.38E-05
ADPF	[MJ]	2.29E+04	0.00E+00	3.44E+01	5.01E+01	4.80E-01	-1.32E+04
Caption	GWP = Global warming potential; ODP = Ozone depletion potential; AP = Acidification potential of soil and water; EP = Eutrophication potential; POCP = Photochemical ozone creation potential; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources						
	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.						

RESOURCE USE PER 1 TONNE OF STEEL PRODUCT GROUP 1							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	7.98E+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]	7.98E+02	0.00E+00	2.47E+00	5.74E+00	8.18E-02	-7.70E+02
PENRE	[MJ]	2.35E+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]	2.35E+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]	4.92E+00	0.00E+00	2.72E-03	1.60E-02	1.26E-04	-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						
	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.						

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 TONNE OF STEEL PRODUCT GROUP 1							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
HWD	[kg]	3.96E-07	0.00E+00	1.29E-10	-5.35E-10	1.08E-11	3.95E-07
NHWD	[kg]	8.79E+01	0.00E+00	5.04E-03	1.29E-01	2.50E+00	-2.04E+01
RWD	[kg]	9.99E-02	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.						

PcP Danmark A/S punched-hole 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	[kg CO ₂ -eq.]	2.50E+03	0.00E+00	2.52E+00	3.44E+00	1.42E-02	-1.73E+03
ODP	[kg CFC11-eq.]	6.98E-10	0.00E+00	2.64E-13	9.63E-12	4.55E-14	-1.28E-09
AP	[kg SO ₂ -eq.]	4.86E+00	0.00E+00	2.50E-03	9.64E-03	8.47E-05	-3.28E+00
EP	[kg PO ₄ ³⁻ -eq.]	4.92E-01	0.00E+00	5.55E-04	2.25E-03	9.62E-06	-3.45E-01
POCP	[kg ethene-eq.]	8.27E-01	0.00E+00	-2.62E-04	1.07E-03	6.38E-06	-5.76E-01
ADPE	[kg Sb-eq.]	1.50E-02	0.00E+00	1.66E-07	2.86E-06	7.08E-10	-6.91E-05
ADPF	[MJ]	2.60E+04	0.00E+00	3.44E+01	5.01E+01	1.92E-01	-1.43E+04
Caption	GWP = Global warming potential; ODP = Ozone depletion potential; AP = Acidification potential of soil and water; EP = Eutrophication potential; POCP = Photochemical ozone creation potential; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources						
	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.						

RESOURCE USE PER 1 TONNE OF GALVANIZED STEEL PRODUCT GROUP 2							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	1.32E+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]	1.32E+03	0.00E+00	2.47E+00	5.74E+00	3.27E-02	-8.33E+02
PENRE	[MJ]	2.70E+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]	2.70E+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	5.05E-05	-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						
	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.						

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]	3.24E-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]	9.10E-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.						

PcP Danmark A/S punched-hole 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	[kg CO ₂ -eq.]	3.51E+03	0.00E+00	2.52E+00	3.44E+00	5.68E-02	-8.34E+02
ODP	[kg CFC11-eq.]	5.85E-10	0.00E+00	2.64E-13	9.63E-12	1.82E-13	-3.36E-09
AP	[kg SO ₂ -eq.]	2.11E+01	0.00E+00	2.50E-03	9.64E-03	3.39E-04	-5.99E+00
EP	[kg PO ₄ ³⁻ -eq.]	1.27E+00	0.00E+00	5.55E-04	2.25E-03	3.85E-05	-2.48E-01
POCP	[kg ethene-eq.]	1.12E+00	0.00E+00	-2.62E-04	1.07E-03	2.55E-05	-2.96E-01
ADPE	[kg Sb-eq.]	2.33E-01	0.00E+00	1.66E-07	2.86E-06	2.83E-09	-5.55E-02
ADPF	[MJ]	4.32E+04	0.00E+00	3.44E+01	5.01E+01	7.67E-01	-9.06E+03
Caption	GWP = Global warming potential; ODP = Ozone depletion potential; AP = Acidification potential of soil and water; EP = Eutrophication potential; POCP = Photochemical ozone creation potential; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources						
	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.						

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]	4.80E+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]	4.80E+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]	4.80E+04	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						
	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.						

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.						

PcP Danmark A/S punched-hole 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	[kg CO ₂ -eq.]	8.96E+03	0.00E+00	2.52E+00	3.44E+00	2.26E+00	-9.05E+02
ODP	[kg CFC11-eq.]	1.11E-08	0.00E+00	2.64E-13	9.63E-12	4.54E-12	-7.29E-10
AP	[kg SO ₂ -eq.]	3.54E+01	0.00E+00	2.50E-03	9.64E-03	5.99E-03	-3.71E+00
EP	[kg PO ₄ ³⁻ -eq.]	2.23E+00	0.00E+00	5.55E-04	2.25E-03	6.64E-04	-2.22E-01
POCP	[kg ethene-eq.]	2.05E+00	0.00E+00	-2.62E-04	1.07E-03	5.49E-04	-2.11E-01
ADPE	[kg Sb-eq.]	5.00E-04	0.00E+00	1.66E-07	2.86E-06	6.67E-08	-4.76E-05
ADPF	[MJ]	9.79E+04	0.00E+00	3.44E+01	5.01E+01	3.32E+01	-9.65E+03
Caption	GWP = Global warming potential; ODP = Ozone depletion potential; AP = Acidification potential of soil and water; EP = Eutrophication potential; POCP = Photochemical ozone creation potential; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources						
	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.						

RESOURCE USE PER 1 TONNE OF ALUMINIUM PRODUCT GROUP 4							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	5.27E+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]	5.27E+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						
	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.						

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 TONNE OF ALUMINIUM PRODUCT GROUP 4							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
HWD	[kg]	5.98E-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]	6.96E+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.						

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