

This appendix refers to the EPD MD-20046-EN\_rev1, 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.

**Product 1: Painted GSY BEAM®**

ENVIRONMENTAL IMPACTS PER TON										
Parameter	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
GWP	[kg CO <sub>2</sub> -eq.]	1.89E+03	8.18E+00	6.34E-01	0.00E+00	6.34E-01	8.26E+00	4.17E+01	0.00E+00	-1.12E+03
ODP	[kg CFC11-eq.]	6.52E-12	2.04E-15	2.30E-16	0.00E+00	2.30E-16	2.06E-15	3.05E-06	0.00E+00	-2.65E-12
AP	[kg SO <sub>2</sub> -eq.]	4.34E+00	2.08E-02	2.40E-03	0.00E+00	2.40E-03	2.10E-02	2.47E-01	0.00E+00	-1.80E+00
EP	[kg PO <sub>4</sub> <sup>3-</sup> -eq.]	4.88E-01	4.93E-03	5.45E-04	0.00E+00	5.45E-04	4.97E-03	9.47E-02	0.00E+00	-9.32E-02
POCP	[kg ethene-eq.]	5.75E-01	-7.25E-03	2.41E-04	0.00E+00	2.41E-04	-7.32E-03	1.82E-02	0.00E+00	-5.59E-01
ADPE	[kg Sb-eq.]	1.32E-04	6.74E-07	7.63E-08	0.00E+00	7.63E-08	6.81E-07	1.37E-03	0.00E+00	-2.48E-03
ADPF	[MJ]	1.77E+04	1.10E+02	1.25E+01	0.00E+00	1.25E+01	1.11E+02	3.31E+02	0.00E+00	-1.05E+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									

RESOURCE USE PER TON										
Parameter	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
PERE	[MJ]	1.52E+03	6.42E+00	7.26E-01	0.00E+00	7.26E-01	6.49E+00	5.52E+01	0.00E+00	9.11E+02
PERM	[MJ]	5.88E-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
PERT	[MJ]	1.52E+03	6.42E+00	7.26E-01	0.00E+00	7.26E-01	6.49E+00	5.52E+01	0.00E+00	9.11E+02
PENRE	[MJ]	1.83E+04	1.11E+02	1.26E+01	0.00E+00	1.26E+01	1.13E+02	3.79E+02	0.00E+00	-1.02E+04
PENRM	[MJ]	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
PENRT	[MJ]	1.83E+04	1.11E+02	1.26E+01	0.00E+00	1.26E+01	1.13E+02	3.79E+02	0.00E+00	-1.02E+04
SM	[kg]	2.43E+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
RSF	[MJ]	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
NRSF	[MJ]	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
FW	[m <sup>3</sup> ]	2.68E+00	7.48E-03	8.46E-04	0.00E+00	8.46E-04	7.56E-03	2.18E-01	0.00E+00	-5.18E+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 = Use of net fresh water									

WASTE CATEGORIES AND OUTPUT FLOWS PER TON										
Parameter	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
HWD	[kg]	9.89E-05	5.16E-06	5.83E-07	0.00E+00	5.83E-07	5.21E-06	3.32E-08	0.00E+00	2.80E-06
NHWD	[kg]	2.42E+01	1.77E-02	2.00E-03	0.00E+00	2.00E-03	1.78E-02	2.59E+00	0.00E+00	1.23E+02
RWD	[kg]	1.98E-01	2.06E-04	2.32E-05	0.00E+00	2.32E-05	2.08E-04	3.95E-04	0.00E+00	-4.02E-04
CRU	[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
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.22E+02	0.00E+00	0.00E+00
MER	[kg]	6.19E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+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	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	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									

**Product 2: Galvanised GSY BEAM®**

ENVIRONMENTAL IMPACTS PER TON										
Parameter	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
GWP	[kg CO <sub>2</sub> -eq.]	1.88E+03	8.18E+00	6.34E-01	0.00E+00	6.34E-01	8.26E+00	2.27E+01	0.00E+00	-1.12E+03
ODP	[kg CFC11-eq.]	6.73E-12	2.04E-15	2.30E-16	0.00E+00	2.30E-16	2.06E-15	3.05E-06	0.00E+00	-2.61E-12
AP	[kg SO <sub>2</sub> -eq.]	4.32E+00	2.08E-02	2.40E-03	0.00E+00	2.40E-03	2.10E-02	2.40E-01	0.00E+00	-1.80E+00
EP	[kg PO <sub>4</sub> <sup>3-</sup> -eq.]	4.85E-01	4.93E-03	5.45E-04	0.00E+00	5.45E-04	4.97E-03	9.34E-02	0.00E+00	-9.25E-02
POCP	[kg ethene-eq.]	5.61E-01	-7.25E-03	2.41E-04	0.00E+00	2.41E-04	-7.32E-03	1.78E-02	0.00E+00	-5.58E-01
ADPE	[kg Sb-eq.]	2.76E-04	6.74E-07	7.63E-08	0.00E+00	7.63E-08	6.81E-07	1.37E-03	0.00E+00	-2.48E-03
ADPF	[MJ]	1.72E+04	1.10E+02	1.25E+01	0.00E+00	1.25E+01	1.11E+02	3.23E+02	0.00E+00	-1.05E+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									

RESOURCE USE PER TON										
Parameter	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
PERE	[MJ]	1.49E+03	6.42E+00	7.26E-01	0.00E+00	7.26E-01	6.49E+00	5.37E+01	0.00E+00	9.38E+02
PERM	[MJ]	5.88E-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
PERT	[MJ]	1.49E+03	6.42E+00	7.26E-01	0.00E+00	7.26E-01	6.49E+00	5.37E+01	0.00E+00	9.38E+02
PENRE	[MJ]	1.78E+04	1.11E+02	1.26E+01	0.00E+00	1.26E+01	1.13E+02	3.70E+02	0.00E+00	-1.02E+04
PENRM	[MJ]	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
PENRT	[MJ]	1.78E+04	1.11E+02	1.26E+01	0.00E+00	1.26E+01	1.13E+02	3.70E+02	0.00E+00	-1.02E+04
SM	[kg]	2.43E+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
RSF	[MJ]	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
NRSF	[MJ]	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
FW	[m <sup>3</sup> ]	2.78E+00	7.48E-03	8.46E-04	0.00E+00	8.46E-04	7.56E-03	1.62E-01	0.00E+00	-5.16E+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 = Use of net fresh water									

WASTE CATEGORIES AND OUTPUT FLOWS PER TON										
Parameter	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
HWD	[kg]	4.10E-05	5.16E-06	5.83E-07	0.00E+00	5.83E-07	5.21E-06	0.00E+00	0.00E+00	2.84E-06
NHWD	[kg]	2.36E+01	1.77E-02	2.00E-03	0.00E+00	2.00E-03	1.78E-02	0.00E+00	0.00E+00	1.23E+02
RWD	[kg]	1.91E-01	2.06E-04	2.32E-05	0.00E+00	2.32E-05	2.08E-04	0.00E+00	0.00E+00	3.69E-04
CRU	[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
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.22E+02	0.00E+00	0.00E+00
MER	[kg]	6.11E+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
EEE	[MJ]	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
EET	[MJ]	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
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									

Checked and approved by



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