

This appendix refers to the EPD MD-24016-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.

SAERTEX-LINER® ENVIROMENT 600/5

ENVIRONMENTAL IMPACTS PER [1m ³]									
Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP	[kg CO ₂ -eq.]	1,17E+04	1,55E+02	8,45E+02	2,31E+02	1,63E+01	0,00E+00	2,84E+03	-7,78E+02
ODP	[kg CFC11-eq.]	1,67E-06	4,56E-11	2,23E-10	8,03E-10	4,80E-12	0,00E+00	1,08E-09	-1,25E-08
AP	[kg SO ₂ -eq.]	3,06E+01	1,32E-01	4,90E+00	1,28E+00	1,39E-02	0,00E+00	1,12E+00	-5,82E-01
EP	[kg PO ₄ ³⁻ -eq.]	3,60E+00	2,75E-02	1,25E+00	2,19E-01	2,90E-03	0,00E+00	2,25E-01	-1,29E-01
POCP	[kg ethene-eq.]	3,40E+00	-1,16E-02	5,23E-01	1,94E-01	-1,23E-03	0,00E+00	6,71E-02	-6,01E-02
ADPE	[kg Sb-eq.]	2,77E-03	1,13E-05	4,56E-05	1,99E-04	1,19E-06	0,00E+00	6,93E-06	-7,05E-05
ADPF	[MJ]	2,52E+05	2,11E+03	8,48E+03	3,71E+04	2,22E+02	0,00E+00	1,24E+03	-1,08E+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 [1m ³]									
Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	[MJ]	2,86E+04	1,43E+02	5,89E+02	2,52E+03	1,51E+01	0,00E+00	4,51E+02	-4,75E+03
PERM	[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
PERT	[MJ]	2,86E+04	1,43E+02	5,89E+02	2,52E+03	1,51E+01	0,00E+00	4,51E+02	-4,75E+03
PENRE	[MJ]	2,70E+05	2,14E+03	8,61E+03	3,77E+04	2,25E+02	0,00E+00	1,38E+03	-1,22E+04
PENRM	[MJ]	2,65E+04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	2,96E+05	2,14E+03	8,61E+03	3,77E+04	2,25E+02	0,00E+00	1,38E+03	-1,22E+04
SM	[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
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
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
FW	[m ³]	5,08E+01	1,27E-01	1,05E+00	2,24E+00	1,34E-02	0,00E+00	8,33E+00	-1,64E+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 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 [1m ³]									
Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
HWD	[kg]	1,39E-04	3,60E-09	1,49E-08	6,35E-08	3,79E-10	0,00E+00	1,36E-08	-7,97E-07
NHWD	[kg]	5,85E+02	3,20E-01	3,44E+00	5,63E+00	3,37E-02	0,00E+00	1,69E+02	-6,60E+00
RWD	[kg]	3,93E+00	2,81E-03	1,30E-02	4,96E-02	2,96E-04	0,00E+00	4,62E-02	-4,75E-01
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
MFR	[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
MER	[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
EEE	[MJ]	3,32E+02	0,00E+00	2,76E+02	0,00E+00	0,00E+00	0,00E+00	2,61E+03	0,00E+00
EET	[MJ]	7,75E+02	0,00E+00	6,47E+02	0,00E+00	0,00E+00	0,00E+00	6,05E+03	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.								

SAERTEX-LINER® ENVIROMENT 800/10

ENVIRONMENTAL IMPACTS PER [1m ³]									
Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP	[kg CO ₂ -eq.]	9,98E+03	1,45E+02	6,66E+02	9,68E+01	1,51E+01	0,00E+00	2,63E+03	-7,38E+02
ODP	[kg CFC11-eq.]	1,33E-06	4,27E-11	1,67E-10	3,36E-10	4,44E-12	0,00E+00	9,99E-10	-1,19E-08
AP	[kg SO ₂ -eq.]	3,07E+01	1,24E-01	3,20E+00	5,37E-01	1,29E-02	0,00E+00	1,03E+00	-5,52E-01
EP	[kg PO ₄ ³⁻ -eq.]	3,29E+00	2,58E-02	8,13E-01	9,15E-02	2,68E-03	0,00E+00	2,08E-01	-1,23E-01
POCP	[kg ethene-eq.]	3,08E+00	-1,09E-02	3,40E-01	8,11E-02	-1,13E-03	0,00E+00	6,20E-02	-5,70E-02
ADPE	[kg Sb-eq.]	3,01E-03	1,06E-05	2,98E-05	8,34E-05	1,10E-06	0,00E+00	6,41E-06	-6,68E-05
ADPF	[MJ]	2,04E+05	1,97E+03	5,53E+03	1,55E+04	2,05E+02	0,00E+00	1,15E+03	-1,03E+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								
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RESOURCE USE PER [1m ³]									
Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	[MJ]	2,40E+04	1,34E+02	3,92E+02	1,05E+03	1,39E+01	0,00E+00	4,17E+02	-4,51E+03
PERM	[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
PERT	[MJ]	2,40E+04	1,34E+02	3,92E+02	1,05E+03	1,39E+01	0,00E+00	4,17E+02	-4,51E+03
PENRE	[MJ]	2,20E+05	2,00E+03	5,62E+03	1,58E+04	2,08E+02	0,00E+00	1,27E+03	-1,15E+04
PENRM	[MJ]	1,36E+04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	2,34E+05	2,00E+03	5,62E+03	1,58E+04	2,08E+02	0,00E+00	1,27E+03	-1,15E+04
SM	[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
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
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
FW	[m ³]	4,40E+01	1,19E-01	9,65E-01	9,38E-01	1,24E-02	0,00E+00	7,70E+00	-1,56E+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								
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WASTE CATEGORIES AND OUTPUT FLOWS PER [1m ³]									
Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
HWD	[kg]	7,54E-05	3,38E-09	9,92E-09	2,66E-08	3,51E-10	0,00E+00	1,26E-08	-7,56E-07
NHWD	[kg]	5,89E+02	3,00E-01	3,47E+00	2,36E+00	3,11E-02	0,00E+00	1,56E+02	-6,26E+00
RWD	[kg]	3,17E+00	2,64E-03	9,38E-03	2,07E-02	2,74E-04	0,00E+00	4,27E-02	-4,51E-01
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
MFR	[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
MER	[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
EEE	[MJ]	2,57E+02	0,00E+00	3,24E+02	0,00E+00	0,00E+00	0,00E+00	2,41E+03	0,00E+00
EET	[MJ]	5,99E+02	0,00E+00	7,58E+02	0,00E+00	0,00E+00	0,00E+00	5,60E+03	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								
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SAERTEX-LINER® ENVIROMENT 1200/11

ENVIRONMENTAL IMPACTS PER [1m ³]									
Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP	[kg CO ₂ -eq.]	9,85E+03	1,47E+02	7,64E+02	6,58E+01	1,48E+01	0,00E+00	2,59E+03	-7,69E+02
ODP	[kg CFC11-eq.]	1,32E-06	4,34E-11	1,82E-10	2,28E-10	4,37E-12	0,00E+00	9,84E-10	-1,24E-08
AP	[kg SO ₂ -eq.]	3,05E+01	1,26E-01	3,02E+00	3,65E-01	1,27E-02	0,00E+00	1,02E+00	-5,75E-01
EP	[kg PO ₄ ³⁻ -eq.]	3,27E+00	2,62E-02	7,67E-01	6,22E-02	2,64E-03	0,00E+00	2,05E-01	-1,28E-01
POCP	[kg ethene-eq.]	3,06E+00	-1,11E-02	3,21E-01	5,51E-02	-1,12E-03	0,00E+00	6,11E-02	-5,93E-02
ADPE	[kg Sb-eq.]	3,92E-03	1,08E-05	2,81E-05	5,67E-05	1,09E-06	0,00E+00	6,31E-06	-6,96E-05
ADPF	[MJ]	2,03E+05	2,01E+03	5,22E+03	1,06E+04	2,02E+02	0,00E+00	1,13E+03	-1,07E+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								
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RESOURCE USE PER [1m ³]									
Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	[MJ]	2,47E+04	1,36E+02	3,78E+02	7,17E+02	1,37E+01	0,00E+00	4,11E+02	-4,69E+03
PERM	[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
PERT	[MJ]	2,47E+04	1,36E+02	3,78E+02	7,17E+02	1,37E+01	0,00E+00	4,11E+02	-4,69E+03
PENRE	[MJ]	2,19E+05	2,03E+03	5,31E+03	1,07E+04	2,05E+02	0,00E+00	1,25E+03	-1,20E+04
PENRM	[MJ]	1,25E+04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	2,31E+05	2,03E+03	5,31E+03	1,07E+04	2,05E+02	0,00E+00	1,25E+03	-1,20E+04
SM	[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
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
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
FW	[m ³]	4,37E+01	1,21E-01	1,24E+00	6,38E-01	1,22E-02	0,00E+00	7,58E+00	-1,62E+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								
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HWD	[kg]	6,91E-05	3,43E-09	9,60E-09	1,80E-08	3,45E-10	0,00E+00	1,24E-08	-7,89E-07
NHWD	[kg]	5,83E+02	3,04E-01	4,67E+00	1,60E+00	3,07E-02	0,00E+00	1,54E+02	-6,52E+00
RWD	[kg]	3,15E+00	2,68E-03	9,89E-03	1,41E-02	2,70E-04	0,00E+00	4,20E-02	-4,70E-01
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
MFR	[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
MER	[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
EEE	[MJ]	2,49E+02	0,00E+00	4,75E+02	0,00E+00	0,00E+00	0,00E+00	2,37E+03	0,00E+00
EET	[MJ]	5,81E+02	0,00E+00	1,11E+03	0,00E+00	0,00E+00	0,00E+00	5,51E+03	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								
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Checked and approved by



Kim Christiansen
Third party verifier of MD-24016-EN



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