

This appendix refers to the EPD MD-24019-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® GAS 600/5,3

ENVIRONMENTAL IMPACTS PER [1m ³]									
Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP	[kg CO ₂ -eq.]	5,95E+03	1,64E+02	9,20E+02	2,18E+02	1,74E+01	0,00E+00	3,02E+03	-8,23E+02
ODP	[kg CFC11-eq.]	2,54E-07	4,83E-11	2,45E-10	7,58E-10	5,11E-12	0,00E+00	1,15E-09	-1,33E-08
AP	[kg SO ₂ -eq.]	2,36E+01	1,40E-01	5,50E+00	1,21E+00	1,48E-02	0,00E+00	1,19E+00	-6,16E-01
EP	[kg PO ₄ ³⁻ -eq.]	1,97E+00	2,92E-02	1,40E+00	2,06E-01	3,09E-03	0,00E+00	2,40E-01	-1,37E-01
POCP	[kg ethene-eq.]	2,72E+00	-1,23E-02	5,86E-01	1,83E-01	-1,30E-03	0,00E+00	7,14E-02	-6,36E-02
ADPE	[kg Sb-eq.]	2,48E-03	1,20E-05	5,11E-05	1,88E-04	1,27E-06	0,00E+00	7,38E-06	-7,46E-05
ADPF	[MJ]	1,11E+05	2,23E+03	9,51E+03	3,50E+04	2,36E+02	0,00E+00	1,32E+03	-1,14E+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]	1,23E+04	1,52E+02	6,59E+02	2,38E+03	1,60E+01	0,00E+00	4,80E+02	-5,03E+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]	1,23E+04	1,52E+02	6,59E+02	2,38E+03	1,60E+01	0,00E+00	4,80E+02	-5,03E+03
PENRE	[MJ]	1,20E+05	2,27E+03	9,65E+03	3,55E+04	2,40E+02	0,00E+00	1,46E+03	-1,29E+04
PENRM	[MJ]	2,71E+04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	3,91E+05	2,27E+03	9,65E+03	3,55E+04	2,40E+02	0,00E+00	1,46E+03	-1,29E+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]	2,71E+01	1,35E-01	1,11E+00	2,12E+00	1,43E-02	0,00E+00	8,86E+00	-1,74E+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]	1,26E-04	3,82E-09	1,67E-08	5,99E-08	4,04E-10	0,00E+00	1,45E-08	-8,44E-07
NHWD	[kg]	5,25E+02	3,39E-01	3,60E+00	5,32E+00	3,59E-02	0,00E+00	1,80E+02	-6,99E+00
RWD	[kg]	1,16E+00	2,98E-03	1,44E-02	4,68E-02	3,15E-04	0,00E+00	4,91E-02	-5,03E-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]	4,17E+02	0,00E+00	2,76E+02	0,00E+00	0,00E+00	0,00E+00	2,77E+03	0,00E+00
EET	[MJ]	9,71E+02	0,00E+00	6,47E+02	0,00E+00	0,00E+00	0,00E+00	6,45E+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® GAS 800/10,3

ENVIRONMENTAL IMPACTS PER [1m ³]									
Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP	[kg CO ₂ -eq.]	5,72E+03	1,55E+02	7,50E+02	9,40E+01	1,62E+01	0,00E+00	2,81E+03	-7,85E+02
ODP	[kg CFC11-eq.]	3,33E-07	4,56E-11	1,91E-10	3,26E-10	4,76E-12	0,00E+00	1,07E-09	-1,27E-08
AP	[kg SO ₂ -eq.]	2,47E+01	1,32E-01	3,85E+00	5,22E-01	1,38E-02	0,00E+00	1,11E+00	-5,87E-01
EP	[kg PO ₄ ³⁻ -eq.]	1,99E+00	2,75E-02	9,80E-01	8,89E-02	2,87E-03	0,00E+00	2,23E-01	-1,31E-01
POCP	[kg ethene-eq.]	2,74E+00	-1,16E-02	4,10E-01	7,88E-02	-1,22E-03	0,00E+00	6,65E-02	-6,06E-02
ADPE	[kg Sb-eq.]	2,78E-03	1,13E-05	3,58E-05	8,10E-05	1,18E-06	0,00E+00	6,87E-06	-7,11E-05
ADPF	[MJ]	1,03E+05	2,11E+03	6,66E+03	1,51E+04	2,20E+02	0,00E+00	1,23E+03	-1,09E+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]	1,12E+04	1,43E+02	4,69E+02	1,02E+03	1,49E+01	0,00E+00	4,47E+02	-4,79E+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]	1,12E+04	1,43E+02	4,69E+02	1,02E+03	1,49E+01	0,00E+00	4,47E+02	-4,79E+03
PENRE	[MJ]	1,12E+05	2,14E+03	6,77E+03	1,53E+04	2,23E+02	0,00E+00	1,36E+03	-1,23E+04
PENRM	[MJ]	1,39E+04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	1,26E+05	2,14E+03	6,77E+03	1,53E+04	2,23E+02	0,00E+00	1,36E+03	-1,23E+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]	2,66E+01	1,27E-01	1,03E+00	9,11E-01	1,33E-02	0,00E+00	8,25E+00	-1,66E+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]	6,85E-05	3,60E-09	1,19E-08	2,58E-08	3,76E-10	0,00E+00	1,35E-08	-8,05E-07
NHWD	[kg]	3,97E+02	3,20E-01	3,64E+00	2,29E+00	3,34E-02	0,00E+00	1,67E+02	-6,66E+00
RWD	[kg]	1,01E+00	2,81E-03	1,09E-02	2,01E-02	2,94E-04	0,00E+00	4,58E-02	-4,80E-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]	3,75E+02	0,00E+00	3,24E+02	0,00E+00	0,00E+00	0,00E+00	2,58E+03	0,00E+00
EET	[MJ]	8,77E+02	0,00E+00	7,58E+02	0,00E+00	0,00E+00	0,00E+00	6,00E+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® GAS 1200/11,3

ENVIRONMENTAL IMPACTS PER [1m³]									
Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP	[kg CO ₂ -eq.]	5,63E+03	1,59E+02	8,48E+02	6,41E+01	1,62E+01	0,00E+00	2,82E+03	-8,26E+02
ODP	[kg CFC11-eq.]	3,34E-07	4,69E-11	2,06E-10	2,22E-10	4,76E-12	0,00E+00	1,07E-09	-1,33E-08
AP	[kg SO ₂ -eq.]	2,47E+01	1,36E-01	3,68E+00	3,56E-01	1,38E-02	0,00E+00	1,11E+00	-6,18E-01
EP	[kg PO ₄ ³⁻ -eq.]	1,98E+00	2,83E-02	9,35E-01	6,06E-02	2,88E-03	0,00E+00	2,23E-01	-1,37E-01
POCP	[kg ethene-eq.]	2,73E+00	-1,20E-02	3,91E-01	5,37E-02	-1,22E-03	0,00E+00	6,65E-02	-6,38E-02
ADPE	[kg Sb-eq.]	3,70E-03	1,17E-05	3,42E-05	5,52E-05	1,18E-06	0,00E+00	6,88E-06	-7,48E-05
ADPF	[MJ]	1,03E+05	2,17E+03	6,36E+03	1,03E+04	2,20E+02	0,00E+00	1,23E+03	-1,15E+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 [1m³]									
Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	[MJ]	1,19E+04	1,47E+02	4,56E+02	6,98E+02	1,49E+01	0,00E+00	4,48E+02	-5,04E+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]	1,19E+04	1,47E+02	4,56E+02	6,98E+02	1,49E+01	0,00E+00	4,48E+02	-5,04E+03
PENRE	[MJ]	1,12E+05	2,20E+03	6,47E+03	1,04E+04	2,23E+02	0,00E+00	1,36E+03	-1,29E+04
PENRM	[MJ]	1,33E+04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	1,25E+05	2,20E+03	6,47E+03	1,04E+04	2,23E+02	0,00E+00	1,36E+03	-1,29E+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	[m³]	2,66E+01	1,31E-01	1,31E+00	6,21E-01	1,33E-02	0,00E+00	8,26E+00	-1,74E+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 [1m³]									
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HWD	[kg]	6,24E-05	3,71E-09	1,16E-08	1,76E-08	3,76E-10	0,00E+00	1,35E-08	-8,47E-07
NHWD	[kg]	3,82E+02	3,29E-01	4,85E+00	1,56E+00	3,34E-02	0,00E+00	1,67E+02	-7,01E+00
RWD	[kg]	1,01E+00	2,90E-03	1,14E-02	1,37E-02	2,94E-04	0,00E+00	4,58E-02	-5,05E-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]	3,70E+02	0,00E+00	4,75E+02	0,00E+00	0,00E+00	0,00E+00	2,59E+03	0,00E+00
EET	[MJ]	8,63E+02	0,00E+00	1,11E+03	0,00E+00	0,00E+00	0,00E+00	6,01E+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-24019-EN



Martha Katrine Sørensen
EPD Danmark

