

This appendix refers to the EPD MD-24018-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® H2O 300/4,3

ENVIRONMENTAL IMPACTS PER [1m ³]									
Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP	[kg CO ₂ -eq.]	1,25E+04	1,68E+02	1,51E+03	5,41E+02	1,74E+01	0,00E+00	3,03E+03	-8,51E+02
ODP	[kg CFC11-eq.]	1,68E-06	4,93E-11	4,10E-10	1,88E-09	5,13E-12	0,00E+00	1,15E-09	-1,37E-08
AP	[kg SO ₂ -eq.]	3,44E+01	1,43E-01	9,57E+00	3,00E+00	1,49E-02	0,00E+00	1,20E+00	-6,37E-01
EP	[kg PO ₄ ³⁻ -eq.]	3,89E+00	2,98E-02	2,43E+00	5,12E-01	3,10E-03	0,00E+00	2,41E-01	-1,42E-01
POCP	[kg ethene-eq.]	3,69E+00	-1,26E-02	1,02E+00	4,54E-01	-1,31E-03	0,00E+00	7,17E-02	-6,57E-02
ADPE	[kg Sb-eq.]	3,49E-03	1,23E-05	8,89E-05	4,67E-04	1,27E-06	0,00E+00	7,41E-06	-7,70E-05
ADPF	[MJ]	2,64E+05	2,28E+03	1,65E+04	8,68E+04	2,37E+02	0,00E+00	1,33E+03	-1,18E+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]	3,05E+04	1,55E+02	1,14E+03	5,90E+03	1,61E+01	0,00E+00	4,82E+02	-5,19E+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]	3,05E+04	1,55E+02	1,14E+03	5,90E+03	1,61E+01	0,00E+00	4,82E+02	-5,19E+03
PENRE	[MJ]	2,85E+05	2,31E+03	1,68E+04	8,81E+04	2,41E+02	0,00E+00	1,47E+03	-1,33E+04
PENRM	[MJ]	3,28E+04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	3,15E+05	2,31E+03	1,68E+04	8,81E+04	2,41E+02	0,00E+00	1,47E+03	-1,33E+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]	5,45E+01	1,38E-01	1,72E+00	5,25E+00	1,43E-02	0,00E+00	8,90E+00	-1,80E+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]	1,77E-04	3,90E-09	2,89E-08	1,48E-07	4,05E-10	0,00E+00	1,45E-08	-8,72E-07
NHWD	[kg]	7,59E+02	3,46E-01	4,86E+00	1,32E+01	3,60E-02	0,00E+00	1,80E+02	-7,22E+00
RWD	[kg]	4,07E+00	3,04E-03	2,43E-02	1,16E-01	3,17E-04	0,00E+00	4,93E-02	-5,20E-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]	5,18E+02	0,00E+00	3,66E+02	0,00E+00	0,00E+00	0,00E+00	2,79E+03	0,00E+00
EET	[MJ]	1,21E+03	0,00E+00	8,58E+02	0,00E+00	0,00E+00	0,00E+00	6,47E+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® H2O 600/5,3

ENVIRONMENTAL IMPACTS PER [1m ³]									
Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP	[kg CO ₂ -eq.]	1,18E+04	1,55E+02	9,20E+02	2,18E+02	1,64E+01	0,00E+00	2,85E+03	-7,80E+02
ODP	[kg CFC11-eq.]	1,66E-06	4,57E-11	2,45E-10	7,58E-10	4,82E-12	0,00E+00	1,08E-09	-1,26E-08
AP	[kg SO ₂ -eq.]	3,07E+01	1,32E-01	5,50E+00	1,21E+00	1,39E-02	0,00E+00	1,12E+00	-5,84E-01
EP	[kg PO ₄ ³⁻ -eq.]	3,59E+00	2,76E-02	1,40E+00	2,06E-01	2,91E-03	0,00E+00	2,26E-01	-1,30E-01
POCP	[kg ethene-eq.]	3,40E+00	-1,17E-02	5,86E-01	1,83E-01	-1,23E-03	0,00E+00	6,73E-02	-6,02E-02
ADPE	[kg Sb-eq.]	2,76E-03	1,14E-05	5,11E-05	1,88E-04	1,20E-06	0,00E+00	6,95E-06	-7,07E-05
ADPF	[MJ]	2,52E+05	2,11E+03	9,51E+03	3,50E+04	2,23E+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								
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RESOURCE USE PER [1m ³]									
Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	[MJ]	2,85E+04	1,43E+02	6,59E+02	2,38E+03	1,51E+01	0,00E+00	4,53E+02	-4,77E+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]	2,85E+04	1,43E+02	6,59E+02	2,38E+03	1,51E+01	0,00E+00	4,53E+02	-4,77E+03
PENRE	[MJ]	2,69E+05	2,14E+03	9,65E+03	3,55E+04	2,26E+02	0,00E+00	1,38E+03	-1,22E+04
PENRM	[MJ]	2,79E+04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	2,97E+05	2,14E+03	9,65E+03	3,55E+04	2,26E+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]	5,09E+01	1,28E-01	1,11E+00	2,12E+00	1,34E-02	0,00E+00	8,35E+00	-1,65E+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]	1,38E-04	3,61E-09	1,67E-08	5,99E-08	3,81E-10	0,00E+00	1,36E-08	-8,00E-07
NHWD	[kg]	5,95E+02	3,21E-01	3,60E+00	5,32E+00	3,38E-02	0,00E+00	1,69E+02	-6,62E+00
RWD	[kg]	3,89E+00	2,82E-03	1,44E-02	4,68E-02	2,97E-04	0,00E+00	4,63E-02	-4,77E-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]	4,55E+02	0,00E+00	2,76E+02	0,00E+00	0,00E+00	0,00E+00	2,61E+03	0,00E+00
EET	[MJ]	1,06E+03	0,00E+00	6,47E+02	0,00E+00	0,00E+00	0,00E+00	6,07E+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® H2O 1200/11,3

ENVIRONMENTAL IMPACTS PER [1m ³]									
Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP	[kg CO ₂ -eq.]	9,91E+03	1,49E+02	8,48E+02	6,41E+01	1,50E+01	0,00E+00	2,62E+03	-7,76E+02
ODP	[kg CFC11-eq.]	1,29E-06	4,39E-11	2,06E-10	2,22E-10	4,42E-12	0,00E+00	9,95E-10	-1,25E-08
AP	[kg SO ₂ -eq.]	3,10E+01	1,27E-01	3,68E+00	3,56E-01	1,28E-02	0,00E+00	1,03E+00	-5,81E-01
EP	[kg PO ₄ ³⁻ -eq.]	3,28E+00	2,65E-02	9,35E-01	6,06E-02	2,67E-03	0,00E+00	2,07E-01	-1,29E-01
POCP	[kg ethene-eq.]	3,07E+00	-1,12E-02	3,91E-01	5,37E-02	-1,13E-03	0,00E+00	6,18E-02	-5,99E-02
ADPE	[kg Sb-eq.]	3,94E-03	1,09E-05	3,42E-05	5,52E-05	1,10E-06	0,00E+00	6,39E-06	-7,03E-05
ADPF	[MJ]	2,02E+05	2,03E+03	6,36E+03	1,03E+04	2,04E+02	0,00E+00	1,14E+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								
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RESOURCE USE PER [1m ³]									
Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	[MJ]	2,44E+04	1,38E+02	4,56E+02	6,98E+02	1,39E+01	0,00E+00	4,16E+02	-4,74E+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]	2,44E+04	1,38E+02	4,56E+02	6,98E+02	1,39E+01	0,00E+00	4,16E+02	-4,74E+03
PENRE	[MJ]	2,18E+05	2,06E+03	6,47E+03	1,04E+04	2,07E+02	0,00E+00	1,27E+03	-1,21E+04
PENRM	[MJ]	1,34E+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	2,06E+03	6,47E+03	1,04E+04	2,07E+02	0,00E+00	1,27E+03	-1,21E+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	1,22E-01	1,31E+00	6,21E-01	1,23E-02	0,00E+00	7,67E+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								
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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]	6,79E-05	3,47E-09	1,16E-08	1,76E-08	3,49E-10	0,00E+00	1,25E-08	-7,96E-07
NHWD	[kg]	6,03E+02	3,08E-01	4,80E+00	1,56E+00	3,10E-02	0,00E+00	1,55E+02	-6,59E+00
RWD	[kg]	3,11E+00	2,71E-03	1,14E-02	1,37E-02	2,73E-04	0,00E+00	4,25E-02	-4,74E-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]	3,60E+02	0,00E+00	4,74E+02	0,00E+00	0,00E+00	0,00E+00	2,40E+03	0,00E+00
EET	[MJ]	8,42E+02	0,00E+00	1,11E+03	0,00E+00	0,00E+00	0,00E+00	5,58E+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.								

Checked and approved by



Kim Christiansen
Third party verifier of MD-24018-EN



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