

This appendix refers to the EPD MD-24182-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.

ENVIRONMENTAL IMPACTS PER 1 m <sup>2</sup> of insulation material with thickness corresponding to R-value = 1m <sup>2</sup> K/W														
Parameter	Unit						Scenario 1					Scenario 2		
		A1	A2	A3	A4	A5	C1	C2	C3	C4	D	C3	C4	D
GWP	kg CO <sub>2</sub> -eq.	1,17E+00	3,29E-02	2,83E-01	8,96E-04	1,26E-02	0,00E+00	2,80E-04	2,28E-04	0,00E+00	-1,20E+00	0,00E+00	2,02E+00	-7,25E-01
ODP	kg CFC11-eq.	2,79E-11	5,04E-15	2,32E-09	1,37E-16	1,70E-15	0,00E+00	4,29E-17	1,05E-14	0,00E+00	-2,73E-12	0,00E+00	1,05E-13	-6,95E-12
AP	kg SO <sub>2</sub> -eq.	1,47E-03	3,01E-05	4,76E-04	9,43E-07	1,05E-06	0,00E+00	2,94E-07	1,01E-18	0,00E+00	-1,39E-03	0,00E+00	1,06E-04	-1,16E-03
EP	kg PO <sub>4</sub> (3-)-eq.	2,02E-04	6,38E-06	1,89E-04	2,06E-07	2,29E-07	0,00E+00	6,44E-08	2,37E-10	0,00E+00	-1,96E-04	0,00E+00	2,39E-05	-1,88E-04
POCP	kg ethene-eq.	2,85E-04	2,76E-06	1,47E-02	7,54E-08	1,14E-07	0,00E+00	2,35E-08	2,64E-11	0,00E+00	-2,73E-04	0,00E+00	1,12E-05	-1,16E-04
ADPE	kg Sb-eq.	4,50E-08	2,17E-09	1,64E-07	5,92E-11	2,66E-11	0,00E+00	1,85E-11	3,18E-14	0,00E+00	-4,57E-08	0,00E+00	9,17E-10	-7,37E-08
ADPF	MJ	4,28E+01	4,41E-01	4,31E+00	1,20E-02	5,74E-03	0,00E+00	3,75E-03	4,54E-11	0,00E+00	-4,25E+01	0,00E+00	1,82E-01	-8,16E+00
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, e.g., 1.95E+02. This number can also be written as: 1.95*10 <sup>2</sup> or 195, while 1.12E-11 is the same as 1.12*10 <sup>-11</sup> or 0.0000000000112.													

RESOURCE USE PER 1 m <sup>2</sup> of insulation material with thickness corresponding to R-value = 1m <sup>2</sup> K/W														
Parameter	Unit						Scenario 1					Scenario 2		
		A1	A2	A3	A4	A5	C1	C2	C3	C4	D	C3	C4	D
PERE	MJ	1,15E+00	3,26E-02	2,67E-01	8,89E-04	1,37E-03	0,00E+00	2,78E-04	7,91E-04	0,00E+00	-1,23E+00	0,00E+00	5,68E-02	-7,20E+00
PERM	MJ	1,73E-01	0,00E+00	-1,73E-01	0,00E+00	-4,99E-04	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	1,32E+00	3,26E-02	9,46E-02	8,89E-04	8,67E-04	0,00E+00	2,78E-04	7,91E-04	0,00E+00	-1,23E+00	0,00E+00	5,68E-02	-7,20E+00
PENRE	MJ	4,37E+01	4,50E-01	5,13E+00	1,23E-02	6,36E-03	0,00E+00	3,83E-03	2,96E-03	0,00E+00	-4,34E+01	0,00E+00	2,23E-01	-1,14E+01
PENRM	MJ	2,26E+01	0,00E+00	2,48E-01	0,00E+00	-2,90E-01	0,00E+00	0,00E+00	-2,25E+01	0,00E+00	0,00E+00	0,00E+00	-2,25E+01	0,00E+00
PENRT	MJ	6,62E+01	4,50E-01	5,38E+00	1,23E-02	-2,83E-01	0,00E+00	3,83E-03	-2,25E+01	0,00E+00	-4,34E+01	0,00E+00	-2,23E+01	-1,14E+01
SM	kg	8,83E-03	0,00E+00	1,75E-05	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	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	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m <sup>3</sup>	6,05E-03	3,57E-05	3,54E-03	9,74E-07	2,84E-05	0,00E+00	3,04E-07	0,00E+00	0,00E+00	-6,38E-03	0,00E+00	3,84E-03	-4,37E-03
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, e.g., 1.95E+02. This number can also be written as: 1.95*10 <sup>2</sup> or 195, while 1.12E-11 is the same as 1.12*10 <sup>-11</sup> or 0.0000000000112.													

WASTE CATEGORIES AND OUTPUT FLOWS PER 1 m <sup>2</sup> of insulation material with thickness corresponding to R-value = 1m <sup>2</sup> K/W														
Parameter	Unit						Scenario 1					Scenario 2		
		A1	A2	A3	A4	A5	C1	C2	C3	C4	D	C3	C4	D
HWD	kg	2,77E-09	1,39E-12	5,06E-11	3,80E-14	4,69E-14	0,00E+00	1,19E-14	0,00E+00	0,00E+00	-2,94E-09	0,00E+00	5,04E-12	-4,75E-10
NHWD	kg	1,00E-02	6,85E-05	2,55E-03	1,87E-06	1,14E-03	0,00E+00	5,84E-07	6,89E-17	0,00E+00	-1,08E-02	0,00E+00	7,30E-03	-2,18E-02
RWD	kg	1,44E-04	8,41E-07	8,00E-06	2,30E-08	2,02E-07	0,00E+00	7,16E-09	5,10E-09	0,00E+00	-1,59E-04	0,00E+00	1,34E-05	-1,06E-03
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	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	7,54E-03	0,00E+00	1,98E-03	0,00E+00	0,00E+00	6,00E-01	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	MJ	0,00E+00	0,00E+00	2,63E-02	0,00E+00	2,28E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,64E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	4,73E-02	0,00E+00	4,07E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,48E+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, e.g., 1.95E+02. This number can also be written as: 1.95*10 <sup>2</sup> or 195, while 1.12E-11 is the same as 1.12*10 <sup>-11</sup> or 0.0000000000112.													

Independent verification of the tool on which declaration and data is based, according to EN ISO 14025:2010.  
Checked and approved by

David Althoff Palm  
Third party verifier of MD-24182-EN

Martha Katrine Sørensen  
EPD Danmark