This appendix refers to the EPD MD-24168-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 m² of insulation material with thickness corresponding to R-value = 1m²K/W

									Scenario 1			Scenario 2		
Parameter	**Unit**	**A1**	**A2**	**A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**	**C3**	**C4**	**D**
GWP	kg CO2-eq.	2,19E+00	6,20E-02	6,56E-01	3,44E-03	5,22E-02	0,00E+00	1,01E-03	4,03E-04	0,00E+00	-2,15E+00	0,00E+00	3,57E+00	-1,30E+00
ODP	kg CFC11-eq.	9,76E-10	8,71E-15	7,08E-09	5,28E-16	9,49E-15	0,00E+00	1,54E-16	1,86E-14	0,00E+00	-4,95E-12	0,00E+00	1,85E-13	-1,24E-11
AP	kg SO2-eq.	2,62E-03	3,42E-04	9,72E-04	3,62E-06	3,90E-06	0,00E+00	1,06E-06	1,78E-18	0,00E+00	-2,48E-03	0,00E+00	1,87E-04	-2,06E-03
EP	kg PO4(3-)-eq.	4,39E-04	4,01E-05	4,79E-04	7,92E-07	8,53E-07	0,00E+00	2,32E-07	4,19E-10	0,00E+00	-3,51E-04	0,00E+00	4,22E-05	-3,36E-04
POCP	kg ethene-eq	5,02E-04	2,04E-05	9,58E-05	2,90E-07	4,19E-07	0,00E+00	8,48E-08	4,66E-11	0,00E+00	-4,85E-04	0,00E+00	1,99E-05	-2,08E-04
ADPE	kg Sb-eq	5,34E-07	3,47E-09	4,64E-07	2,28E-10	9,03E-11	0,00E+00	6,66E-11	5,61E-14	0,00E+00	-8,22E-08	0,00E+00	1,62E-09	-1,32E-07
ADPF	MJ	7,67E+01	8,17E-01	7,45E+00	4,62E-02	1,93E-02	0,00E+00	1,35E-02	8,01E-11	0,00E+00	-7,55E+01	0,00E+00	3,22E-01	-1,48E+01
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: $1.95*10^{2}$ or 195, while 1.12E-11 is the same as $1.12*10^{-11}$ or 0.0000000000112.													

RESOURCE USE PER 1 m² of insulation material with thickness corresponding to R-value = 1m²K/W

									Scenario 1			Scenario 2		
Parameter	**Unit**	**A1**	**A2**	**A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**	**C3**	**C4**	**D**
PERE	MJ	2,35E+00	5,12E-02	8,07E-01	3,42E-03	4,66E-03	0,00E+00	9,99E-04	1,40E-03	0,00E+00	-2,30E+00	0,00E+00	1,00E-01	-1,28E+01
PERM	MJ	0,00E+00	0,00E+00	2,66E-03	0,00E+00	-2,66E-03	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	2,35E+00	5,12E-02	8,10E-01	3,42E-03	2,00E-03	0,00E+00	9,99E-04	1,40E-03	0,00E+00	-2,30E+00	0,00E+00	1,00E-01	-1,28E+01
PENRE	MJ	7,85E+01	8,32E-01	9,91E+00	4,71E-02	2,14E-02	0,00E+00	1,38E-02	5,23E-03	0,00E+00	-7,72E+01	0,00E+00	3,94E-01	-2,06E+01
PENRM	MJ	4,30E+01	0,00E+00	-1,81E+00	0,00E+00	-1,07E+00	0,00E+00	0,00E+00	-4,01E+01	0,00E+00	0,00E+00	0,00E+00	-4,01E+01	0,00E+00
PENRT	MJ	1,22E+02	8,32E-01	8,10E+00	4,71E-02	-1,05E+00	0,00E+00	1,38E-02	-4,01E+01	0,00E+00	-7,72E+01	0,00E+00	-3,97E+01	-2,06E+01
SM	kg	0,00E+00	0,00E+00	1,03E-03	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	m3	1,21E-02	5,62E-05	7,13E-03	3,74E-06	1,10E-04	0,00E+00	1,09E-06	0,00E+00	0,00E+00	-1,14E-02	0,00E+00	6,79E-03	-7,82E-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: $1.95*10^{2}$ or 195, while 1.12E-11 is the same as $1.12*10^{-11}$ or 0.0000000000112.													

WASTE CATEGORIES AND OUTPUT FLOWS PER1 m² of insulation material with thickness corresponding to R-value = 1m²K/W

									Scenario 1			Scenario 2		
Parameter	**Unit**	**A1**	**A2**	**A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**	**C3**	**C4**	**D**
HWD	kg	5,27E-09	2,58E-12	1,37E-10	1,46E-13	1,76E-13	0,00E+00	4,27E-14	0,00E+00	0,00E+00	-5,22E-09	0,00E+00	8,90E-12	-8,65E-10
NHWD	kg	1,91E-02	1,19E-04	1,15E-02	7,18E-06	3,52E-03	0,00E+00	2,10E-06	1,22E-16	0,00E+00	-1,94E-02	0,00E+00	1,29E-02	-3,89E-02
RWD	kg	2,91E-04	1,46E-06	1,76E-05	8,82E-08	6,99E-07	0,00E+00	2,58E-08	9,00E-09	0,00E+00	-2,98E-04	0,00E+00	2,37E-05	-1,88E-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	0,00E+00	0,00E+00	8,29E-03	0,00E+00	0,00E+00	1,06E+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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	MJ	0,00E+00	0,00E+00	3,74E-01	0,00E+00	9,14E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,42E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	6,66E-01	0,00E+00	1,63E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,14E+01	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: $1.95*10^{2}$ or 195, while 1.12E-11 is the same as $1.12*10^{-11}$ 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-24168-EN

Martha Katrine Sørensen
EPD Danmark