This appendix refers to the EPD MD-24160-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.	1,23E+00	7,15E-02	2,05E-01	1,38E-03	1,10E-02	0,00E+00	3,20E-04	2,40E-04	0,00E+00	-1,26E+00	0,00E+00	2,12E+00	-7,61E-01
ODP	kg CFC11-eq.	2,93E-11	1,09E-14	4,90E-10	2,11E-16	2,54E-15	0,00E+00	4,91E-17	1,10E-14	0,00E+00	-2,84E-12	0,00E+00	1,10E-13	-7,27E-12
AP	kg SO2-eq.	1,54E-03	6,53E-05	2,27E-04	1,44E-06	9,28E-07	0,00E+00	3,37E-07	1,06E-18	0,00E+00	-1,46E-03	0,00E+00	1,11E-04	-1,21E-03
EP	kg PO4(3-)-eq.	2,12E-04	1,39E-05	4,84E-05	3,14E-07	2,02E-07	0,00E+00	7,36E-08	2,49E-10	0,00E+00	-2,06E-04	0,00E+00	2,51E-05	-1,97E-04
POCP	kg ethene-eq	2,99E-04	6,00E-06	1,55E-02	1,16E-07	1,00E-07	0,00E+00	2,69E-08	2,77E-11	0,00E+00	-2,87E-04	0,00E+00	1,18E-05	-1,22E-04
ADPE	kg Sb-eq	4,73E-08	4,71E-09	1,20E-07	9,11E-11	2,37E-11	0,00E+00	2,11E-11	3,34E-14	0,00E+00	-4,79E-08	0,00E+00	9,63E-10	-7,73E-08
ADPF	MJ	4,49E+01	9,57E-01	3,03E+00	1,85E-02	5,09E-03	0,00E+00	4,29E-03	4,76E-11	0,00E+00	-4,46E+01	0,00E+00	1,91E-01	-8,57E+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: $1.95*10^{2}$ 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	1,21E+00	7,07E-02	6,08E-02	1,37E-03	1,23E-03	0,00E+00	3,18E-04	8,31E-04	0,00E+00	-1,29E+00	0,00E+00	5,97E-02	-7,55E+00
PERM	MJ	1,82E-01	0,00E+00	-1,82E-01	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
PERT	MJ	1,39E+00	7,07E-02	-1,21E-01	1,37E-03	1,23E-03	0,00E+00	3,18E-04	8,31E-04	0,00E+00	-1,29E+00	0,00E+00	5,97E-02	-7,55E+00
PENRE	MJ	4,59E+01	9,76E-01	5,44E+00	1,89E-02	5,63E-03	0,00E+00	4,38E-03	3,11E-03	0,00E+00	-4,56E+01	0,00E+00	2,34E-01	-1,20E+01
PENRM	MJ	2,37E+01	0,00E+00	2,32E-01	0,00E+00	-2,76E-01	0,00E+00	0,00E+00	-2,36E+01	0,00E+00	0,00E+00	0,00E+00	-2,36E+01	0,00E+00
PENRT	MJ	6,95E+01	9,76E-01	5,67E+00	1,89E-02	-2,70E-01	0,00E+00	4,38E-03	-2,36E+01	0,00E+00	-4,56E+01	0,00E+00	-2,34E+01	-1,20E+01
SM	kg	9,27E-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	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	6,36E-03	7,75E-05	2,07E-03	1,50E-06	2,49E-05	0,00E+00	3,48E-07	0,00E+00	0,00E+00	-6,70E-03	0,00E+00	4,03E-03	-4,59E-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	2,91E-09	3,02E-12	5,18E-11	5,84E-14	4,12E-14	0,00E+00	1,36E-14	0,00E+00	0,00E+00	-3,09E-09	0,00E+00	5,29E-12	-4,99E-10
NHWD	kg	1,05E-02	1,49E-04	2,09E-03	2,87E-06	9,99E-04	0,00E+00	6,68E-07	7,24E-17	0,00E+00	-1,13E-02	0,00E+00	7,67E-03	-2,29E-02
RWD	kg	1,51E-04	1,83E-06	8,12E-06	3,53E-08	1,77E-07	0,00E+00	8,20E-09	5,35E-09	0,00E+00	-1,66E-04	0,00E+00	1,41E-05	-1,11E-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	7,92E-03	0,00E+00	2,22E-03	0,00E+00	0,00E+00	6,30E-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	2,76E-02	0,00E+00	2,00E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,82E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	4,96E-02	0,00E+00	3,57E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,80E+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: $1.95*10^{2}$ 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-24160-EN

Martha Katrine Sørensen
EPD Danmark