LCA Results acc. EN15804+A1:2013
Appendix for MD-24161-EN
Valid to: 2029-11-19
Created with the Sunde EPD Tool (Tool ID:T24003, Version 1)

This appendix refers to the EPD MD-24161-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.	1,66E+00	9,98E-02	2,69E-01	1,96E-03	2,16E-02	0,00E+00	6,14E-04	3,24E-04	0,00E+00	-1,71E+00	0,00E+00	2,87E+00	-1,03E+00
ODP	kg CFC11-eq.	3,95E-11	1,53E-14	5,46E-10	3,01E-16	3,77E-15	0,00E+00	9,42E-17	1,49E-14	0,00E+00	-3,87E-12	0,00E+00	1,48E-13	-9,85E-12
AP	kg SO2-eq.	2,08E-03	9,12E-05	2,67E-04	2,05E-06	1,63E-06	0,00E+00	6,46E-07	1,43E-18	0,00E+00	-1,97E-03	0,00E+00	1,50E-04	-1,64E-03
EP	kg PO4(3-)-eq.	2,86E-04	1,93E-05	5,69E-05	4,48E-07	3,56E-07	0,00E+00	1,41E-07	3,36E-10	0,00E+00	-2,79E-04	0,00E+00	3,39E-05	-2,67E-04
POCP	kg ethene-eq	4,04E-04	8,38E-06	2,09E-02	1,65E-07	1,74E-07	0,00E+00	5,17E-08	3,74E-11	0,00E+00	-3,88E-04	0,00E+00	1,59E-05	-1,66E-04
ADPE	kg Sb-eq	6,38E-08	6,58E-09	1,34E-07	1,30E-10	3,65E-11	0,00E+00	4,06E-11	4,51E-14	0,00E+00	-6,51E-08	0,00E+00	1,30E-09	-1,05E-07
ADPF	MJ	6,07E+01	1,34E+00	4,15E+00	2,64E-02	7,77E-03	0,00E+00	8,24E-03	6,43E-11	0,00E+00	-6,04E+01	0,00E+00	2,58E-01	-1,17E+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	1,63E+00	9,88E-02	8,43E-02	1,95E-03	1,87E-03	0,00E+00	6,09E-04	1,12E-03	0,00E+00	-1,77E+00	0,00E+00	8,06E-02	-1,02E+01
PERM	MJ	2,46E-01	0,00E+00	-2,45E-01	0,00E+00	-8,75E-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	1,88E+00	9,88E-02	-1,61E-01	1,95E-03	9,93E-04	0,00E+00	6,09E-04	1,12E-03	0,00E+00	-1,77E+00	0,00E+00	8,06E-02	-1,02E+01
PENRE	MJ	6,19E+01	1,36E+00	6,81E+00	2,69E-02	8,65E-03	0,00E+00	8,41E-03	4,19E-03	0,00E+00	-6,17E+01	0,00E+00	3,17E-01	-1,63E+01
PENRM	MJ	3,20E+01	0,00E+00	4,25E-01	0,00E+00	-4,84E-01	0,00E+00	0,00E+00	-3,19E+01	0,00E+00	0,00E+00	0,00E+00	-3,19E+01	0,00E+00
PENRT	MJ	9,39E+01	1,36E+00	7,23E+00	2,69E-02	-4,76E-01	0,00E+00	8,41E-03	-3,19E+01	0,00E+00	-6,17E+01	0,00E+00	-3,16E+01	-1,63E+01
SM	kg	1,25E-02	0,00E+00	4,46E-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	m3	8,59E-03	1,08E-04	2,56E-03	2,14E-06	4,64E-05	0,00E+00	6,67E-07	0,00E+00	0,00E+00	-9,07E-03	0,00E+00	5,45E-03	-6,22E-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	3,93E-09	4,22E-12	7,51E-11	8,33E-14	7,33E-14	0,00E+00	2,60E-14	0,00E+00	0,00E+00	-4,17E-09	0,00E+00	7,14E-12	-6,80E-10
NHWD	kg	1,42E-02	2,08E-04	2,77E-03	4,10E-06	1,37E-03	0,00E+00	1,28E-06	9,78E-17	0,00E+00	-1,54E-02	0,00E+00	1,04E-02	-3,10E-02
RWD	kg	2,05E-04	2,55E-06	1,13E-05	5,03E-08	2,84E-07	0,00E+00	1,57E-08	7,23E-09	0,00E+00	-2,28E-04	0,00E+00	1,91E-05	-1,50E-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	1,07E-02	0,00E+00	4,00E-03	0,00E+00	0,00E+00	8,51E-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	3,73E-02	0,00E+00	3,91E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,16E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	6,70E-02	0,00E+00	6,98E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,19E+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-24161-EN

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