

This appendix refers to the EPD MD-25042-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 ³ of insulation material with λ-value = 0,037W/mK														
Parameter	Unit						Scenario 1					Scenario 2		
		A1	A2	A3	A4	A5	C1	C2	C3	C4	D	C3	C4	D
GWP	kg CO ₂ -eq.	2,01E+02	1,79E+01	1,38E+01	3,31E-01	2,37E+01	0,00E+00	9,65E-02	1,09E-01	2,21E+00	-4,10E+01	0,00E+00	9,38E+01	-2,48E+01
ODP	kg CFC11-eq.	1,62E-06	2,74E-12	4,46E-08	5,08E-14	2,47E-13	0,00E+00	1,48E-14	4,11E-13	6,34E-12	-9,29E-11	0,00E+00	9,87E-12	-2,36E-10
AP	kg SO ₂ -eq.	6,56E-01	1,64E-02	3,91E-02	3,46E-04	2,48E-04	0,00E+00	1,02E-04	7,84E-05	1,19E-02	-4,73E-02	0,00E+00	1,55E-02	-3,94E-02
EP	kg PO ₄ (3-)-eq.	2,35E-01	3,47E-03	7,54E-03	7,55E-05	4,98E-05	0,00E+00	2,22E-05	1,73E-05	1,36E-03	-6,70E-03	0,00E+00	2,17E-03	-6,43E-03
POCP	kg ethene-eq.	8,52E-02	1,50E-03	5,03E-01	2,79E-05	2,21E-05	0,00E+00	8,13E-06	4,85E-06	8,97E-04	-9,28E-03	0,00E+00	1,28E-03	-3,98E-03
ADPE	kg Sb-eq.	1,29E-03	1,18E-06	1,13E-05	2,19E-08	9,36E-09	0,00E+00	6,38E-09	1,07E-12	9,87E-08	-1,56E-06	0,00E+00	1,30E-07	-2,51E-06
ADPF	MJ	3,19E+03	2,40E+02	5,12E+02	4,44E+00	1,91E+00	0,00E+00	1,30E+00	1,05E-01	2,69E+01	-1,44E+03	0,00E+00	3,31E+01	-2,81E+02
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 m ³ of insulation material with λ-value = 0,037W/mK														
Parameter	Unit						Scenario 1					Scenario 2		
		A1	A2	A3	A4	A5	C1	C2	C3	C4	D	C3	C4	D
PERE	MJ	5,92E+02	1,77E+01	1,62E+01	3,29E-01	2,26E-01	0,00E+00	9,58E-02	5,37E-02	4,58E+00	-4,36E+01	0,00E+00	6,50E+00	-2,45E+02
PERM	MJ	7,98E+00	0,00E+00	3,09E+00	0,00E+00	-1,11E+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
PERT	MJ	6,00E+02	1,77E+01	1,93E+01	3,29E-01	-1,08E+01	0,00E+00	9,58E-02	5,37E-02	4,58E+00	-4,36E+01	0,00E+00	6,50E+00	-2,45E+02
PENRE	MJ	3,33E+03	2,45E+02	7,42E+02	4,53E+00	2,01E+00	0,00E+00	1,32E+00	2,22E-01	2,81E+01	-1,47E+03	0,00E+00	3,56E+01	-3,91E+02
PENRM	MJ	7,66E+02	0,00E+00	8,85E+00	0,00E+00	-1,36E+01	0,00E+00	0,00E+00	-7,61E+02	0,00E+00	0,00E+00	0,00E+00	-7,61E+02	0,00E+00
PENRT	MJ	4,09E+03	2,45E+02	7,51E+02	4,53E+00	-1,16E+01	0,00E+00	1,32E+00	-7,61E+02	2,81E+01	-1,47E+03	0,00E+00	-7,26E+02	-3,91E+02
SM	kg	2,83E+00	0,00E+00	1,33E+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
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 ³	1,06E+00	1,94E-02	2,64E-01	3,60E-04	3,67E-03	0,00E+00	1,05E-04	8,80E-04	7,94E-03	-2,17E-01	0,00E+00	1,38E-01	-1,49E-01
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 PER 1 m ³ of insulation material with λ-value = 0,037W/mK														
Parameter	Unit						Scenario 1					Scenario 2		
		A1	A2	A3	A4	A5	C1	C2	C3	C4	D	C3	C4	D
HWD	kg	9,42E-08	7,58E-10	4,98E-09	1,40E-11	1,18E-11	0,00E+00	4,09E-12	4,66E-12	6,13E-10	-9,98E-08	0,00E+00	7,84E-10	-1,65E-08
NHWD	kg	3,45E-01	3,73E-02	3,80E-01	6,91E-04	6,72E-02	0,00E+00	2,01E-04	2,77E-02	1,40E+02	-3,73E-01	0,00E+00	1,40E+02	-7,45E-01
RWD	kg	4,97E-03	4,58E-04	1,17E-03	8,48E-06	2,43E-05	0,00E+00	2,47E-06	6,01E-06	3,25E-04	-5,49E-03	0,00E+00	7,79E-04	-3,58E-02
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	2,67E-01	0,00E+00	1,34E+01	0,00E+00	0,00E+00	2,03E+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	7,22E+00	0,00E+00	2,24E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,23E+02	0,00E+00
EET	MJ	0,00E+00	0,00E+00	1,30E+01	0,00E+00	4,02E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,19E+02	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-25042-EN

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