



This appendix refers to the EPD MD-24198-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 = 0,034W/mK														
		Scenario 1										Scenario 2		
Parameter	Unit	A1	A2	A3	A4	A5	C1	C2	C3	C4	D	C3	C4	D
GWP	kg CO ₂ -eq.	1,14E+02	9,04E+00	1,75E+01	3,63E-01	3,06E+01	0,00E+00	6,26E-02	1,48E-02	7,82E-01	-5,29E+01	0,00E+00	9,82E+01	-3,20E+01
ODP	kg CFC11-eq.	6,30E-07	1,38E-12	5,76E-08	5,58E-14	3,19E-13	0,00E+00	9,60E-15	4,61E-13	2,44E-12	-1,20E-10	0,00E+00	7,01E-12	-3,04E-10
AP	kg SO ₂ -eq.	3,00E-01	8,26E-03	5,00E-02	3,80E-04	3,21E-04	0,00E+00	6,59E-05	3,76E-06	4,60E-03	-6,11E-02	0,00E+00	9,24E-03	-5,09E-02
EP	kg PO ₄ (3 ⁻)-eq.	9,73E-02	1,75E-03	9,65E-03	8,30E-05	6,43E-05	0,00E+00	1,44E-05	8,39E-07	5,23E-04	-8,65E-03	0,00E+00	1,57E-03	-8,30E-03
POCP	kg ethene-eq.	4,18E-02	7,59E-04	6,50E-01	3,06E-05	2,86E-05	0,00E+00	5,27E-06	2,34E-07	3,47E-04	-1,20E-02	0,00E+00	8,38E-04	-5,14E-03
ADPE	kg Sb-eq.	5,03E-04	5,96E-07	1,46E-05	2,40E-08	1,21E-08	0,00E+00	4,14E-09	1,39E-12	3,84E-08	-2,02E-06	0,00E+00	7,84E-08	-3,24E-06
ADPF	MJ	2,55E+03	1,21E+02	6,61E+02	4,88E+00	2,47E+00	0,00E+00	8,40E-01	5,03E-03	1,04E+01	-1,86E+03	0,00E+00	1,84E+01	-3,63E+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 = 0,034W/mK														
		Scenario 1										Scenario 2		
Parameter	Unit	A1	A2	A3	A4	A5	C1	C2	C3	C4	D	C3	C4	D
PERE	MJ	2,65E+02	8,95E+00	2,06E+01	3,61E-01	2,92E-01	0,00E+00	6,21E-02	3,58E-02	1,77E+00	-5,63E+01	0,00E+00	4,25E+00	-3,17E+02
PERM	MJ	8,38E+00	0,00E+00	5,91E+00	0,00E+00	-1,43E+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	2,73E+02	8,95E+00	2,65E+01	3,61E-01	-1,40E+01	0,00E+00	6,21E-02	3,58E-02	1,77E+00	-5,63E+01	0,00E+00	4,25E+00	-3,17E+02
PENRE	MJ	2,63E+03	1,23E+02	9,57E+02	4,98E+00	2,59E+00	0,00E+00	8,57E-01	1,35E-01	1,09E+01	-1,90E+03	0,00E+00	2,06E+01	-5,05E+02
PENRM	MJ	9,86E+02	0,00E+00	1,44E+01	0,00E+00	-1,76E+01	0,00E+00	0,00E+00	-9,83E+02	0,00E+00	0,00E+00	0,00E+00	-9,83E+02	0,00E+00
PENRT	MJ	3,61E+03	1,23E+02	9,71E+02	4,98E+00	-1,50E+01	0,00E+00	8,57E-01	-9,83E+02	1,09E+01	-1,90E+03	0,00E+00	-9,62E+02	-5,05E+02
SM	kg	1,36E+00	0,00E+00	1,72E+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	5,97E-01	9,80E-03	3,31E-01	3,95E-04	4,74E-03	0,00E+00	6,80E-05	4,22E-05	2,79E-03	-2,80E-01	0,00E+00	1,70E-01	-1,92E-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 = 0,034W/mK														
		Scenario 1										Scenario 2		
Parameter	Unit	A1	A2	A3	A4	A5	C1	C2	C3	C4	D	C3	C4	D
HWD	kg	1,21E-07	3,82E-10	6,41E-09	1,54E-11	1,52E-11	0,00E+00	2,65E-12	2,24E-13	2,37E-10	-1,29E-07	0,00E+00	4,57E-10	-2,13E-08
NHWD	kg	4,39E-01	1,88E-02	3,98E-01	7,59E-04	8,68E-02	0,00E+00	1,31E-04	1,33E-03	5,43E+01	-4,81E-01	0,00E+00	5,46E+01	-9,62E-01
RWD	kg	6,33E-03	2,31E-04	1,45E-03	9,32E-06	3,14E-05	0,00E+00	1,60E-06	5,03E-07	1,24E-04	-7,10E-03	0,00E+00	7,11E-04	-4,63E-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	3,30E-01	0,00E+00	1,73E+01	0,00E+00	0,00E+00	2,62E+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	3,60E+00	0,00E+00	2,89E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,59E+02	0,00E+00
EET	MJ	0,00E+00	0,00E+00	6,48E+00	0,00E+00	5,19E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,83E+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-24198-EN

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