# Environmental Product Declaration according to ISO 14025 and EN 15804



This declaration is for:

Alpha Sectional doors ALU, with wicket door

Provided by:

**Novoferm Nederland Holding B.V.** 





program operator
Stichting MRPI®
publisher
Stichting MRPI®

Stichting MRPI® www.mrpi.nl

MRPI® registration

1.1.00365.2022

date of first issue

23-12-2022

date of this issue

23-12-2022

expiry date

23-12-2027









### **COMPANY INFORMATION**



# Intelligent Door Solutions

Novoferm Nederland Holding B.V. Bedrijvenpark Twente 187 7602 KG Almelo 31 (0) 88 888 8400 sustainability @novoferm.com www.alpha-deuren.nl



### **PRODUCT**

Alpha Sectional doors ALU, with wicket door

DECLARED UNIT/FUNCTIONAL UNIT
1 m2



### **DESCRIPTION OF PRODUCT**

ALU 40/60 with wicket door is a sectional door which consist of aluminium panels fitted with acrylic glazing.



### **VISUAL PRODUCT**





### **MRPI® REGISTRATION**

1.1.00365.2022

DATE OF ISSUE

23-12-2022

**EXPIRY DATE** 

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### MORE INFORMATION

https://www.alpha-deuren.nl/en/category/industrial-door

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### **SCOPE OF DECLARATION**

This MRPI®-EPD certificate is verified by Gert-Jan Vroege, Eco Intelligence.

The LCA study has been done by Mariëlle van Elderen and Branco Schipper, SGS Search.

The certificate is based on an LCA-dossier according to ISO14025 and EN15804+A2/Bepalingsmethode. It is verified according to the 'MRPI®-EPD verification protocol November 2020.v4.0'. EPDs of construction products may not be comparable if they do not comply with EN15804+A2/Bepalingsmethode. Declaration of SVHC that are listed on the 'Candidate List of Substances of Very High Concern for authorisation' when content exceeds the limits for registration with ECHA.



### **PROGRAM OPERATOR**

Stichting MRPI® Kingsfordweg 151 1043GR Amsterdam



ir. J-P den Hollander, Managing director MRPI®

# DEMONSTRATION OF VERIFICATION

CEN standard EN15804 serves as the core PCR[a]

Independent verification of the declaration and data,

according to EN ISO 14025:2010:

internal:

external: X

Third party verifier:

Gert-Jan Vroege, Eco Intelligence

[a] PCR = Product Category Rules







### **DETAILED PRODUCT DESCRIPTION**

Alpha industrial sectional doors are used in private homes, agricultural buildings, industrial buildings and non-residential buildings. The spacesaving industrial sectional door can be fitted to both outdoor and indoor walls.

Sectional doors, type ALU, are constructed from extruded aluminium sections fitted with acrylic glazing. The panels are 40 or 60 mm thick and available in heights varying between 366 and 732 mm. The panels are supplied as standard with an anodised finish or painted with primer in RAL 9002. They can also be painted in a RAL colour chosen by the customer. This option is covered in this EPD.

These ALU sections can be combined with insulated, steel-skinned ISO panels.

When the door is opened, the sections slide back under the roof. The industrial sectional door can be operated manually by pull cord or chain hoist, or supplied with an electric drive. This option is covered in this EPD. The energy use of the motor is not included in the EPD. The energy use is estimated at 0,251 Wh/m² per opening/closing cycle. At 3,000 yearly cycles this would amount to 0,75 kWh/m².

The ALU industrial sectional door can be supplied with an integral wicket door or a pass door next to the sectional door. This option is covered in this EPD.

Sectional doors, type ALU, have an expected service life of more than 100.000 cycles, which complies for 10 years of standard daily use and with a recommended yearly service check. The specified service life is independent of the manufacturer's warranty.

Technical details based on a sectional door ALU for an opening of 3800 x 3500 mm (W x H). These dimensions for the standard door are chosen based on frequency of sale. The presented data comply with those given in the DoP. The different values have been tested by TÜV Nord. The industrial sectional doors comply with EN 13241:2003+A2:2016 (products without smoke control and fire resistant characteristics)



Name	ALU 40	ALU 60	Unit
Airborne sound reduction acc. to EN 717-1	21	21	dB
Heat transfer coefficient Windows / Doors acc.	4.0	2.8	\\//m2K\
DIN EN 10077-1,-2 or DIN EN ISO 12567	4.8	2.0	W/(m2K)
Air permeability acc. EN 12426	1	1	class
Resistance to water penetration acc. to EN	1	1	class
12425			Class
Deflection as a result of wind loads acc. to EN	2	2	class
12424			CidSS







COMPONENT > 1% of total mass	[%]
Aluminium	30% - 40%
PMMA	12% - 12,5%
Galvanized steel	24% - 27,5%
Coated steel	3% - 7,5%
Packaging (pallet / cardboard / paper / film)	13,5% - 14,5%
EPDM	2,5% - 3%
Electronics (motor)	4% - 4,5%
PVC	<1%
Polystyrene	<1%

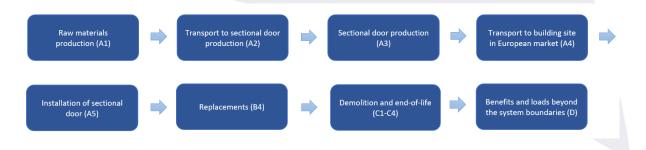
### **SCOPE AND TYPE**

Sectional doors are assembled in the Netherlands and sold on the European market. The type of EPD is Cradle-to-grave in which all modules are included. SimaPro 9.3 was used to perform the LCA calculations. The data used in the module is sourced from Ecoinvent 3.6 and the NMD basisprocessendatabase 3.5. The results are calculated with the exclusion of long-term emissions.

PROD	UCT ST	AGE	CONST	RUCTION			US	SE S1	AGE			E	ND O	F LIFE	•	BENEFITS AND
			PRO	CESS									STA	GE		LOADS BEYOND THE
			ST.	AGE												SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport gate to site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Recovery- Recycling- potential
A1	A2	<b>A3</b>	A4	<b>A5</b>	B1	B2	В3	B4	B5	B6	B7	C1	C2	C3	C4	D
Х	Х	Х	×	Х	X	Х	Х	Х	Х	Х	Х	Х	Х	X	Х	X

X = Modules Assessed

ND = Not Declared



LCA process diagram according to EN 15804 (7.2.1)









### **REPRESENTATIVENESS**

This EPD is representative for sectional doors, type ALU with wicket door, produced by Alpha Deuren in The Netherlands for use in the European market.

# **ENVIRONMENTAL IMPACT per functional unit or declared unit (indicators A1)**

	UNIT	A1	A2	А3	A1-A3	A4	A5	B1	B2	ВЗ	B4	B5	В6	В7	C1	C2	С3	C4	D
ADPE	kg Sb eq.	0.00	0.00	0.00	3.81	1.40	3.35	0.00	0.00	0.00	4.29	0.00	0.00	0.00	9.85	5.20	2.79	9.50	-3.66
ADFL	kg Sb eq.	0.00	0.00	0.00	E-2	E-5	E-6	0.00	0.00	0.00	E-4	0.00	0.00	0.00	E-7	E-6	E-5	E-8	E-3
ADPF	MJ	0.00	0.00	0.00	2.88	8.39	5.50	0.00	0.00	0.00	4.59	0.00	0.00	0.00	3.77	3.11	1.30	2.17	-1.66
ADFI	IVIS	0.00	0.00	0.00	E+3	E+0	E+0	0.00	0.00	0.00	E+0	0.00	0.00	0.00	E+0	E+0	E+1	E-1	E+3
GWP	kg CO2 eq.	0.00	0.00	0.00	2.05	5.49	1.07	0.00	0.00	0.00	3.19	0.00	0.00	0.00	2.41	2.04	8.63	1.17	-1.19
OWI	kg OO2 eq.	0.00	0.00	0.00	E+2	E-1	E+0	0.00	0.00	0.00	E-1	0.00	0.00	0.00	E-1	E-1	E+0	E-2	E+2
ODP	kg CFC11 eg.	0.00	0.00	0.00	9.43	9.73	3.10	0.00	0.00	0.00	1.99	0.00	0.00	0.00	1.19	3.61	5.29	1.64	-5.26
ODI	kg of off eq.	0.00	0.00	0.00	E-6	E-8	E-8	0.00	0.00	0.00	E-8	0.00	0.00	0.00	E-8	E-8	E-8	E-9	E-6
POCP	kg ethene eq.	0.00	0.00	0.00	1.37	3.31	2.73	0.00	0.00	0.00	4.58	0.00	0.00	0.00	3.59	1.23	2.42	8.64	-8.33
1 001	kg ethene eq.	0.00	0.00	0.00	E-1	E-4	E-4	0.00	0.00	0.00	E-4	0.00	0.00	0.00	E-5	E-4	E-4	E-6	E-2
AP	kg SO2 eq.	0.00	0.00	0.00	1.22	2.41	1.24	0.00	0.00	0.00	2.68	0.00	0.00	0.00	4.52	8.95	5.06	6.82	-6.00
AF	kg 302 eq.	0.00	0.00	0.00	E+0	E-3	E-3	0.00	0.00	0.00	E-3	0.00	0.00	0.00	E-4	E-4	E-3	E-5	E-1
EP	kg (PO4)3- eq.	0.00	0.00	0.00	1.31	4.74	3.30	0.00	0.00	0.00	4.80	0.00	0.00	0.00	9.29	1.76	8.96	9.95	-6.00
	ng (1 04)5- eq.	0.00	0.00	0.00	E-1	E-4	E-4	0.00	0.00	0.00	E-4	0.00	0.00	0.00	E-5	E-4	E-4	E-6	E-2

### Toxicity indicators for Dutch market

HTP	kg DCB eg.	0.00	0.00	0.00	1.52	2.31	1.54	0.00	0.00	0.00	1.91	0.00	0.00	0.00	2.71	8.57	8.56	4.55	-1.06
1111	kg DCB eq.	0.00	0.00	0.00	E+2	E-1	E+0	0.00	0.00	0.00	E-1	0.00	0.00	0.00	E-2	E-2	E-1	E-3	E+2
FAETP	kg DCB eg.	0.00	0.00	0.00	3.96	6.74	1.02	0.00	0.00	0.00	3.21	0.00	0.00	0.00	7.48	2.50	3.24	1.40	-1.17
FAEIP	ку всь ец.	0.00	0.00	0.00	E+0	E-3	E-2	0.00	0.00	0.00	E-3	0.00	0.00	0.00	E-4	E-3	E-2	E-4	E+0
MAETP	kg DCB eg.	0.00	0.00	0.00	1.07	2.43	3.57	0.00	0.00	0.00	8.20	0.00	0.00	0.00	3.16	9.00	1.28	3.72	-4.33
WALTE	kg DCB eq.	0.00	0.00	0.00	E+4	E+1	E+1	0.00	0.00	0.00	E+0	0.00	0.00	0.00	E+0	E+0	E+2	E-1	E+3
TETP	kg DCB eg.	0.00	0.00	0.00	4.87	8.16	2.23	0.00	0.00	0.00	5.99	0.00	0.00	0.00	1.23	3.03	4.69	2.07	2.77
ILIF	kg DCB eq.	0.00	0.00	0.00	E-1	E-4	E-3	0.00	0.00	0.00	E-4	0.00	0.00	0.00	E-3	E-4	E-3	E-5	E-1
ECI	Euro	0.00	0.00	0.00	3.17	6.61	2.05	0.00	0.00	0.00	5.05	0.00	0.00	0.00	1.79	2.45	5.52	1.43	-1.92
LCI	Luio	0.00	0.00	0.00	E+1	E-2	E-1	0.00	0.00	0.00	E-2	0.00	0.00	0.00	E-2	E-2	E-1	E-3	E+1
ADPF	kg Sb. eg.	0.00	0.00	0.00	1.39	4.03	2.65	0.00	0.00	0.00	2.21	0.00	0.00	0.00	1.81	1.50	6.24	1.04	-8.00
ADFI	kg Sb. eq.	0.00	0.00	0.00	E+0	E-3	E-3	0.00	0.00	0.00	E-3	0.00	0.00	0.00	E-3	E-3	E-3	E-4	E-1

ADPE = Abiotic Depletion Potential for non-fossil resources

ADPF = Abiotic Depletion Potential for fossil resources

GWP = Global Warming Potential

ODP = Depletion potential of the stratospheric ozone layer

POCP = Formation potential of tropospheric ozone photochemical oxidants

AP = Acidification Potential of land and water

EP = Eutrophication Potential

HTP = Human Toxicity Potential

FAETP = Fresh water aquatic ecotoxicity potential

MAETP = Marine aquatic ecotoxicity potential

TETP = Terrestrial ecotoxicity potential

ECI = Environmental Cost Indicator

ADPF = Abiotic Depletion Potential for fossil resources expressed in [kg Sb-eq.]







# **ENVIRONMENTAL IMPACT** per functional unit or declared unit (core indicators A2)

	UNIT	A1	A2	А3	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	C3	C4	D
OM/D + + +		0.00	0.00	0.00	2.07	5.54	7.77	0.00	0.00	0.00	3.35	0.00	0.00		2.47	2.05	8.66	1.21	-3.51
GWP-total	kg CO2 eq.	0.00	0.00	0.00	E+2	E-1	E+0	0.00	0.00	0.00	E-1	0.00	0.00	0.00	E-1	E-1	E+0	E-2	E+1
GWP-fossil	kg CO2 eq.	0.00	0.00	0.00	2.11	5.53	5.57	0.00	0.00	0.00	3.33	0.00	0.00	0.00	2.44	2.05	8.65	1.20	-1.23
	Ng 002 04.	0.00	0.00	0.00	E+2	E-1	E-1	0.00	0.00	0.00	E-1	0.00	0.00	0.00	E-1	E-1	E+0	E-2	E+2
GWP-biogenic	kg CO2 eq.	0.00	0.00	0.00	-4.27	2.56	7.21	0.00	0.00	0.00	1.20	0.00	0.00	0.00	2.68	9.49	5.76	1.26	8.80
					E+0	E-4	E+0				E-3				E-3	E-5	E-3	E-4	E+1
GWP-luluc	kg CO2 eq.	0.00	0.00	0.00	4.98 E-1	2.03 E-4	1.36 E-4	0.00	0.00	0.00	1.90 E-4	0.00	0.00	0.00	7.21 E-5	7.52 E-5	1.51 E-3	9.64 E-6	-4.09 E-1
					1.00	1.22	3.56				1.98				1.18	4.53	5.30	2.01	-5.85
ODP	kg CFC11 eq.	0.00	0.00	0.00	E-5	E-7	5.50 E-8	0.00	0.00	0.00	E-8	0.00	0.00	0.00	E-8	E-8	5.50 E-8	E-9	E-6
					1.52	3.21	1.62				4.23				5.71	1.19	6.35	8.62	-7.20
AP	mol H+ eq.	0.00	0.00	0.00	E+0	E-3	E-3	0.00	0.00	0.00	E-3	0.00	0.00	0.00	E-4	E-3	E-3	E-5	E-1
ED ()	1. 504	0.00	0.00	0.00	1.01	5.58	1.55	0.00	0.00	0.00	1.55	0.00	0.00	0.00	1.39	2.07	4.95	3.60	-3.98
EP-freshwater	kg PO4 eq.	0.00	0.00	0.00	E-2	E-6	E-5	0.00	0.00	0.00	E-5	0.00	0.00	0.00	E-5	E-6	E-5	E-7	E-3
EP-marine	kg N eq.	0.00	0.00	0.00	2.13	1.13	6.25	0.00	0.00	0.00	3.98	0.00	0.00	0.00	1.22	4.20	1.52	2.24	-1.24
Li -ilialille	kg N eq.	0.00	0.00	0.00	E-1	E-3	E-4	0.00	0.00	0.00	E-4	0.00	0.00	0.00	E-4	E-4	E-3	E-5	E-1
EP-terrestrial	mol N eg.	0.00	0.00	0.00	3.07	1.25	5.59	0.00	0.00	0.00	1.54	0.00	0.00	0.00	1.50	4.63	1.69	2.50	-1.38
					E+0	E-2	E-3				E-2				E-3	E-3	E-2	E-4	E+0
POCP	kg NMVOC eq.	0.00	0.00	0.00	7.55	3.56	1.70	0.00	0.00	0.00	1.64	0.00	0.00	0.00	3.71	1.32	4.14	7.37	-4.66
ADD minoral					E-1 3.81	E-3	E-3				E-3				E-4 9.85	E-3 5.20	E-3 2.79	E-5 9.50	E-1 -3.66
ADP-mineral s & metals	kg Sb eq.	0.00	0.00	0.00	3.81 E-2	1.40 E-5	3.35 E-6	0.00	0.00	0.00	4.29 E-4	0.00	0.00	0.00	9.85 E-7	5.20 E-6	2.79 E-5	9.50 E-8	-3.66 E-3
S & Illetais	MJ. net				2.43	8.34	4.90				3.56				3.20	3.10	1.13	1.99	-1.29
ADP-fossil	calorific value	0.00	0.00	0.00	E+3	E+0	E+0	0.00	0.00	0.00	E+0	0.00	0.00	0.00	E+0	E+0	E+1	E-1	E+3
	m3 world eq.				6.66	2.98	4.15				1.14				2.46	1.11	6.96	6.30	-1.70
WDP	deprived	0.00	0.00	0.00	E+1	E-2	E-2	0.00	0.00	0.00	E-1	0.00	0.00	0.00	E-2	E-2	E-1	E-3	E+1

GWP-total = Global Warming Potential total

GWP-fossil = Global Warming Potential fossil fuels

GWP-biogenic = Global Warming Potential biogenic

GWP-luluc = Global Warming Potential land use and land use change

ODP = Depletion potential of the stratospheric ozone layer

AP = Acidification Potential, Accumulated Exceedence

EP-freshwater = Eutrophication Potential, fraction of nutrients reaching freshwater end compartment

EP-marine = Eutrophication Potential, fraction of nutrients reaching marine end compartment

EP-terrestrial = Eutrophication Potential, Accumulated Exceedence

POCP = Formation potential of tropospheric ozone photochemical oxidants

ADP-minerals&metals = Abiotic Depletion Potential for non fossil resources [2]

ADP-fossil = Abiotic Depletion for fossil resources potential [2]

WDP = Water (user) deprivation potential, deprivation-weighted water consumption [2]

### Disclaimer [2]

- The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.







# **ENVIRONMENTAL IMPACT** per functional unit or declared unit (additional indicators A2)

	UNIT	A1	A2	А3	A1-A3	A4	A5	B1	B2	ВЗ	B4	B5	В6	В7	C1	C2	С3	C4	D
PM	Disease	0.00	0.00	0.00	1.53	4.97	3.88	0.00	0.00	0.00	4.42	0.00	0.00	0.00	1.87	1.84	3.87	1.29	-9.85
FIVI	incidence	0.00	0.00	0.00	E-5	E-8	E-8	0.00	0.00	0.00	E-8	0.00	0.00	0.00	E-9	E-8	E-8	E-9	E-6
IRP	kBg U235 eg.	0.00	0.00	0.00	4.57	3.50	1.37	0.00	0.00	0.00	7.53	0.00	0.00	0.00	6.62	1.30	4.81	7.21	-1.77
IIXF	KBQ 0233 eq.	0.00	0.00	0.00	E+0	E-2	E-2	0.00	0.00	0.00	E-3	0.00	0.00	0.00	E-3	E-2	E-2	E-4	E+0
ETP-fw	CTUe	0.00	0.00	0.00	7.34	7.44	6.91	0.00	0.00	0.00	1.28	0.00	0.00	0.00	3.26	2.76	4.89	1.51	-2.95
LTF-IW	Croe	0.00	0.00	0.00	E+3	E+0	E+0	0.00	0.00	0.00	E+1	0.00	0.00	0.00	E+0	E+0	E+1	E+2	E+3
HTP-c	CTUh	0.00	0.00	0.00	3.21	2.41	5.64	0.00	0.00	0.00	1.49	0.00	0.00	0.00	5.59	8.96	1.08	9.41	-1.71
IIIF-C	CTOIL	0.00	0.00	0.00	E-7	E-10	E-10	0.00	0.00	0.00	E-9	0.00	0.00	0.00	E-11	E-11	E-9	E-12	E-7
HTP-nc	CTUh	0.00	0.00	0.00	5.83	8.14	7.19	0.00	0.00	0.00	1.31	0.00	0.00	0.00	1.82	3.02	5.68	2.68	-3.16
TITE-IIC	CTOIL	0.00	0.00	0.00	E-6	E-9	E-9	0.00	0.00	0.00	E-8	0.00	0.00	0.00	E-9	E-9	E-8	E-10	E-7
SQP		0.00	0.00	0.00	9.22	7.24	1.98	0.00	0.00	0.00	1.02	0.00	0.00	0.00	6.59	2.69	3.31	3.01	-8.03
SQF		0.00	0.00	0.00	E+2	E+0	E+0	0.00	0.00	0.00	E+0	0.00	0.00	0.00	E-1	E+0	E+0	E-1	E+3

PM = Potential incidence of disease due to PM emissions

IRP = Potential Human exposure efficiency relative to U235 [1]

ETP-fw = Potential Comparative Toxic Unit for ecosystems [2]

HTP-c = Potential Comparative Toxic Unit for humans [2]

HTP-nc = Potential Comparative Toxic Unit for humans, non-cancer [2]

SQP = Potential soil quality index [2]

### Disclaimer [1]

- This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

### Disclaimer [2]

- The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.







# RESOURCE USE per functional unit or declared unit (A1 / A2)

	UNIT	A1	A2	А3	A1-A3	A4	A5	B1	B2	В3	B4	В5	В6	В7	C1	C2	<b>C</b> 3	C4	D
PERE	MJ	0.00	0.00	0.00	2.23 E+2	1.04 E-1	3.81 E-1	0.00	0.00	0.00	1.70 E-1	0.00	0.00	0.00	3.45 E-1	3.88 E-2	1.36 E+0	8.59 E-3	-1.26 E+3
PERM	MJ	0.00	0.00	0.00	5.79 E+1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PERT	MJ	0.00	0.00	0.00	2.81 E+2	1.04 E-1	3.81 E-1	0.00	0.00	0.00	1.70 E-1	0.00	0.00	0.00	3.45 E-1	3.88 E-2	1.36 E+0	8.59 E-3	-1.26 E+3
PENRE	MJ	0.00	0.00	0.00	2.47 E+3	8.86 E+0	5.23 E+0	0.00	0.00	0.00	3.78 E+0	0.00	0.00	0.00	3.43 E+0	3.29 E+0	1.21 E+1	2.12 E-1	-1.38 E+3
PENRM	MJ	0.00	0.00	0.00	1.21 E+2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PENRT	MJ	0.00	0.00	0.00	2.59 E+3	8.86 E+0	5.23 E+0	0.00	0.00	0.00	3.78 E+0	0.00	0.00	0.00	3.43 E+0	3.29 E+0	1.21 E+1	2.12 E-1	-1.38 E+3
SM	kg	0.00	0.00	0.00	4.95 E+0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RSF	MJ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRSF	MJ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FW	m3	0.00	0.00	0.00	2.37 E+0	1.02 E-3	2.60 E-3	0.00	0.00	0.00	3.07 E-3	0.00	0.00	0.00	1.96 E-3	3.77 E-4	2.35 E-2	1.70 E-4	-7.64 E-1

PERE = Use of renewable energy excluding renewable primary energy resources

PERM = Use of renewable energy resources used as raw materials

PERT = Total use of renewable primary energy resources

PENRE = Use of non-renewable primary energy resources excluding non-renewable 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 materials

RSF = Use of renewable secondary fuels

NRSF = Use of non renewable secondary fuels

FW = Use of net fresh water

# OUTPUT FLOWS AND WASTE CATEGORIES per functional unit or declared unit (A1 / A2)

	UNIT	A1	A2	А3	A1-A3	A4	A5	B1	B2	ВЗ	В4	В5	В6	В7	C1	C2	СЗ	C4	D
HWD	kg	0.00	0.00	0.00	3.24	2.11	6.75	0.00	0.00	0.00	7.78	0.00	0.00	0.00	2.47	7.85	1.19	2.26	4.65
	9				E-2	E-5	E-6				E-5				E-6	E-6	E-5	E-7	E-2
NHWD	kg	0.00	0.00	0.00	3.41	5.29	1.06	0.00	0.00	0.00	6.85	0.00	0.00	0.00	9.44	1.96	2.31	6.71	-2.25
INITIVID	Ng	0.00	0.00	0.00	E+1	E-1	E-1	0.00	0.00	0.00	E-2	0.00	0.00	0.00	E-3	E-1	E-1	E-1	E+1
DWD	lea.	0.00	0.00	0.00	4.48	5.48	1.72	0.00	0.00	0.00	7.50	0.00	0.00	0.00	6.62	2.03	3.48	9.53	-2.16
RWD	kg	0.00	0.00	0.00	E-3	E-5	E-5	0.00	0.00	0.00	E-6	0.00	0.00	0.00	E-6	E-5	E-5	E-7	E-3
CRU	lea.	0.00	0.00	0.00	0.00	0.00	1.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CRU	kg	0.00	0.00	0.00	0.00	0.00	E+0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MED	1	0.00	0.00	0.00	5.25	0.00	3.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.83	0.00	0.00
MFR	kg	0.00	0.00	0.00	E-1	0.00	E+0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E+1	0.00	0.00
MED	1	0.00	0.00	0.00	8.74	0.00	3.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.32	0.00	0.00
MER	kg	0.00	0.00	0.00	E-3	0.00	E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E+0	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	8.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.92	0.00	0.00
EEE	MJ	0.00	0.00	0.00	0.00	0.00	E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E+1	0.00	0.00
FTF		0.00	0.00	0.00	0.00	0.00	1.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.31	0.00	0.00
ETE	MJ	0.00	0.00	0.00	0.00	0.00	E+0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E+1	0.00	0.00

HWD = Hazardous Waste Disposed

RWD = Radioactive Waste Disposed

MFR = Materials for recycling

EEE = Exported Electrical Energy

NHWD = Non Hazardous Waste Disposed

CRU = Components for reuse

MER = Materials for energy recovery

ETE = Exported Thermal Energy







# **BIOGENIC CARBON CONTENT per functional unit or declared unit (A1 / A2)**

	UNIT	A1	A2	А3	A1-A3	A4	<b>A5</b>	B1	B2	В3	B4	В5	В6	В7	C1	C2	C3	C4	D
BCCpr	kg C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ВССра	kg C	0.00	0.00	0.00	1.75 E+0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

BCCpr = Biogenic carbon content in product
BCCpa = Biogenic carbon content in packaging



### **CALCULATION RULES**

The results in the EPD are representative for the ALU 40 door. Results for thicknesses of 60 mm can be calculated by making use of the scaling formula presented below. The scaling formula is a linear relationship with the structure:  $Y = A^*x + C$ . x is the thickness in mm.



Name	A value	C value
Linear scaling formula	0.057659	12.868718

Cut-off rules: The following processes are considered below cutoff: • Maintenance and the use of auxiliary materials and equipment, with exception of such processes that are included in the Ecoinvent background processes.

• Capital goods and infrastructure processes, with exception of such processes that are included in the Ecoinvent background processes. Only the processes considered below cut-off are excluded from the study. No additional processes are excluded.



### SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION

A1 - Extraction of raw materials and processing of intermediate products: This module considers the extraction and processing of all raw materials and energy which occur upstream to the Alpha Deuren manufacturing process, as well as waste processing up to the end-of waste state. This includes manufacturing of intermediate products such as the steel / PUR panels. A2 - Transport to production location: This includes the transport distance of the raw materials and intermediate products to the manufacturing facility via road. A3 - Production: This module takes into account the manufacturing of sectional doors and includes all processes linked to the production such as assembly and packaging.

The results for A4 are given for a transport scenario within the Netherlands (150 km), but a score per 1 km is also given so that users may calculate the impact of transport to an exact location, elsewhere in the European market.









### **DECLARATION OF SVHC**

The sectional door does not contain any substances of very high consern (SVHC).



### **REFERENCES**

ISO, 2006. "Environmental management. Life cycle assessment - Principles and framework". ISO 14040:2006 and Requirements and Guidelines". ISO 14044:2006;.

ISO/TR 14025, "Environmental labels and declarations – Type III environmental declarations", ISO/TR 14025:2000:.

EN 15804+A1:2012 Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products.

"EN 15804+A2:2019 Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products".

"Bepalingsmethode Milieuprestatie Bouwwerken versie 1.1, maart 2022".



### **REMARKS**

None

