

**Environmental
Product
Declaration**

According to ISO14025+EN15804+A2

This declaration is for:
RGC EI(1) 60

Provided by:
MetacoN-Next B.V.



MRPI® registration:
1.1.00915.2025

Program operator:
Stichting MRPI®
Publisher:
Stichting MRPI®
www.mrpi.nl

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COMPANY INFORMATION

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MRPI® REGISTRATION

1.1.00915.2025

DATE OF THIS ISSUE

8-8-2025

EXPIRY DATE

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SCOPE OF DECLARATION

This MRPI®-EPD certificate is verified by Tim Mol, Ecoreview. The LCA study has been done by Rik Wessels, Hedgehog Company. The certificate is based on an LCA-dossier according to ISO14025+EN15804+A2. 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. 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
 1043 GR
 Amsterdam

PRODUCT

RGC EI(1) 60

DECLARED UNIT / FUNCTIONAL UNIT

1 Productiveness (m2)

DESCRIPTION OF PRODUCT

Fire rated industrial roller shutter. Made with fire-retardant raw materials treated to withstand extreme temperatures. When connected to a building's fire system, these doors can deploy automatically upon fire detection, creating an immediate barrier to stop flames and smoke from spreading further.

VISUAL PRODUCT



MORE INFORMATION

<https://metacon-next.com/producten/>

Ing. L. L. Oosterveen MSc. MBA Managing Director MRPI	DEMONSTRATION OF VERIFICATION
	CEN standard EN15804 serves as the core PCR [1]
	Independent verification of the declaration and data according to ISO14025+EN15804+A2 Internal: External: X
	Third party verifier: Tim Mol, Ecoreview
[1] PCR = Product Category Rules	

DETAILED PRODUCT DESCRIPTION (PART 1)

The RGC EI(1) 60 is a roller shutter composed of steel, filled with glassfibre reinforced plastic. At the facility of MetacoN-Next B.V., raw materials are collected, picked and assembled into different products. MetacoN-Next B.V. receives materials in different forms, either as pre-fabricated products, e.g. screws, casings or tubes. On the other hand, they also receive steel coils and plates, that require some further processing into the required dimensions for the type of door set. Depending on the dimensions of the door sets, some components need to be sawn, cut or lasered into the right dimensions. Cutting losses are internally re-used as much as possible in other products. Leftovers are discarded.

Certification

- tested in accordance with EN 1634-1
- classified according to EN 13501-2
- classified according to EN 13501-1 on fire class B-s1, d0
- validated cycle test in accordance with C3 (> 50.000 cycles)
- CE marked in accordance with EN 13241 and EN 16034

Product weight - 98,96 kg/m²

Packaging weight - 1,63 kg/m²

Component (> 1%)	(kg / %)
Steel	62,7
Glassfibre reinforced plastic	34,5
Wood (packaging)	1,1

SCOPE AND TYPE

The roller shutter is produced in Moordrecht, Netherlands and sold within Europe. Distribution is based on EN 17213:2020 PCR for windows and doors. The End-of-life treatment is situated in Europe. The EPD is representative for the geographical scope of Europe. Simparo 10.2.0.2 is used with Ecoinvent version 3.11 (cut-off). This is a product specific EPD.

The indicator results are calculated for a standard sized element of 3.00 m x 2.18 m, based on EN 17213:2020 PCR for windows and doors.

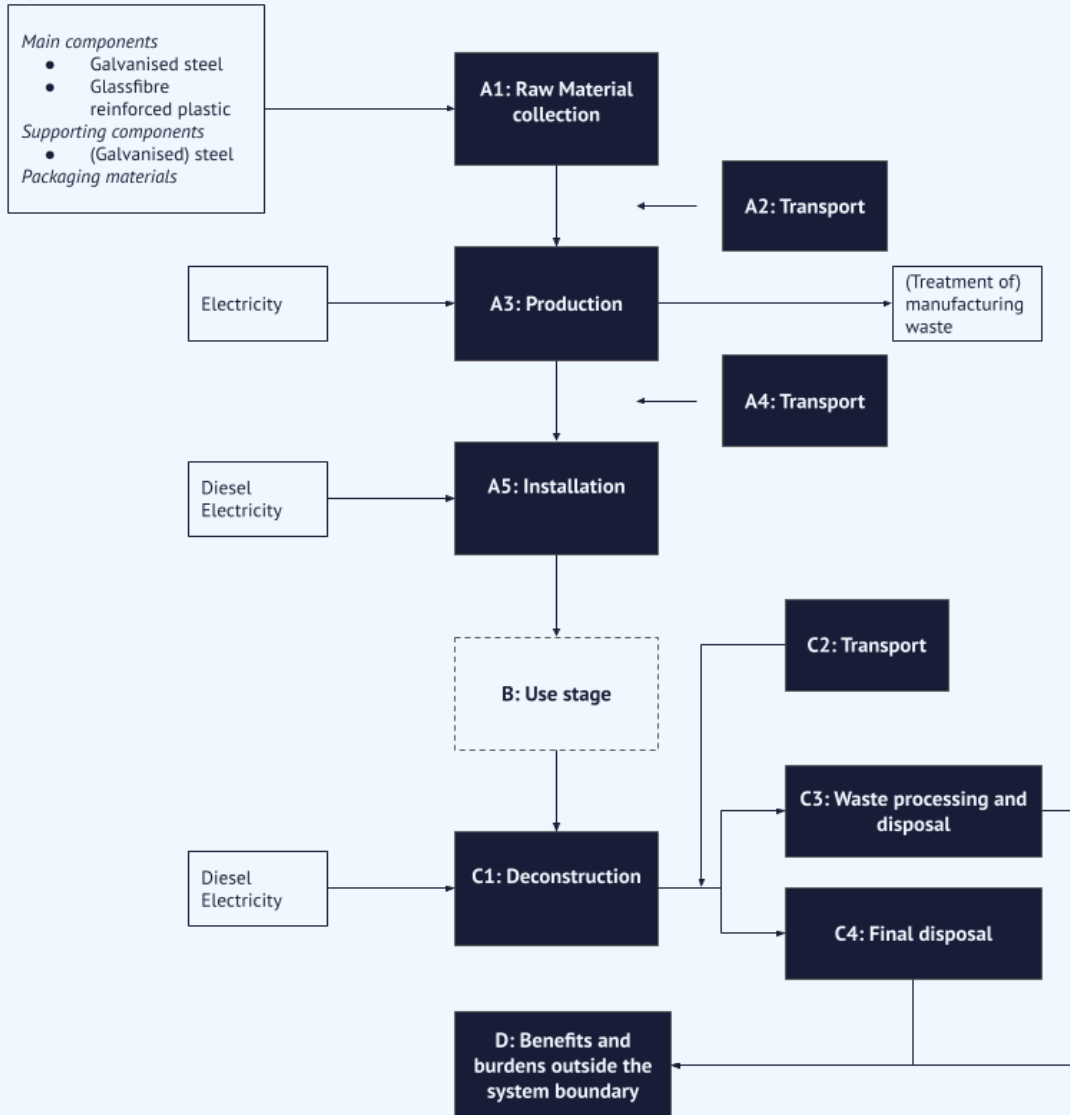
In line with EN 17213 electrical motors and electrical devices connected to shutters and blinds, as well as doorsets, are not included the calculation of this LCA. However, the steel casings of these electrical devices are included in this study.

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE 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	Reuse - Recovery - Recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
x	x	x	x	x	ND	ND	ND	ND	ND	ND	ND	x	x	x	x	x

X = Modules Assessed

ND = Not Declared

RGC EI(1) 60 EW 60



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

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	5,13E+02	2,05E+00	1,24E+01	5,27E+02	9,41E+00	1,13E+01	ND	ND	ND	ND	ND	ND	ND	4,60E+00	1,30E+00	8,58E+01	4,59E-02	-7,74E+01
GWP-fossil	kg CO2 eq.	5,14E+02	2,05E+00	1,24E+01	5,28E+02	9,41E+00	9,59E+00	ND	ND	ND	ND	ND	ND	ND	4,60E+00	1,30E+00	8,58E+01	4,58E-02	-7,74E+01
GWP-biogenic	kg CO2 eq.	-1,74E+00	0,00E+00	0,00E+00	-1,74E+00	0,00E+00	1,74E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
GWP-luluc	kg CO2 eq.	3,78E-01	7,13E-04	9,02E-03	3,88E-01	2,24E-03	1,84E-03	ND	ND	ND	ND	ND	ND	ND	1,44E-03	4,52E-04	2,12E-03	2,06E-05	1,15E-02
ODP	kg CFC11 eq.	3,35E-06	4,51E-08	2,92E-07	3,69E-06	1,51E-07	1,22E-07	ND	ND	ND	ND	ND	ND	ND	1,01E-07	2,86E-08	5,68E-08	8,63E-10	-1,53E-06
AP	mol H+ eq.	2,41E+00	9,45E-03	4,00E-02	2,46E+00	7,38E-02	7,14E-02	ND	ND	ND	ND	ND	ND	ND	9,34E-03	5,99E-03	2,91E-02	1,02E-02	-1,66E-01
EP-fresh water	kg PO4 eq.	9,19E-03	1,56E-05	8,49E-04	1,01E-02	7,16E-05	6,24E-05	ND	ND	ND	ND	ND	ND	ND	3,33E-05	9,90E-06	8,09E-05	4,02E-06	3,55E-03
EP-marine	kg N eq.	6,04E-01	3,68E-03	6,68E-03	6,14E-01	3,30E-02	3,25E-02	ND	ND	ND	ND	ND	ND	ND	2,15E-03	2,33E-03	1,36E-02	2,28E-04	-4,36E-02
EP-terrestrial	mol N eq.	5,21E+00	4,04E-02	7,83E-02	5,33E+00	3,62E-01	3,56E-01	ND	ND	ND	ND	ND	ND	ND	2,38E-02	2,56E-02	1,24E-01	9,35E-04	-6,23E-01
POCP	kg NMVOC eq.	1,40E+00	1,42E-02	2,14E-02	1,44E+00	1,11E-01	1,07E-01	ND	ND	ND	ND	ND	ND	ND	1,49E-02	9,00E-03	3,33E-02	1,00E-03	-2,13E-01
ADP-minerals & metals	kg Sb eq.	3,14E-03	6,72E-06	2,36E-04	3,38E-03	1,20E-05	7,62E-06	ND	ND	ND	ND	ND	ND	ND	1,57E-05	4,26E-06	3,13E-05	6,51E-08	-3,93E-04
ADP-fossil	MJ, net calorific value	7,12E+03	2,96E+01	1,27E+02	7,28E+03	1,27E+02	1,09E+02	ND	ND	ND	ND	ND	ND	ND	6,48E+01	1,88E+01	3,85E+01	7,40E-01	-8,60E+02
WDP	m3 world eq. Deprived	3,77E+02	1,23E-01	3,48E+00	3,81E+02	3,67E-01	3,02E-01	ND	ND	ND	ND	ND	ND	ND	2,30E-01	7,79E-02	3,45E+00	-7,01E-02	3,36E+00

GWP-total	=	Global Warming Potential total
GWP-fossil	=	Global Warming Potential fossil fuels
GWP-biogenic	=	Global Warming Potential biogenictotal
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 [1]
ADP-fossil	=	Abiotic Depletion for fossil resources potential [1]
WDP	=	Water (user) deprivation potential, deprivation-weighted water consumption [1]

Disclaimer [1]:

- 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	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PM	Disease incidence	1,93E-03	2,02E-07	9,87E-08	1,93E-03	2,06E-06	1,98E-06	ND	ND	ND	ND	ND	ND	ND	2,88E-07	1,28E-07	2,49E-07	1,25E-08	-5,08E-06
IRP	kBq U235 eq.	5,47E+02	1,33E-02	5,27E-01	5,48E+02	9,81E-02	8,89E-02	ND	ND	ND	ND	ND	ND	ND	3,33E-02	8,41E-03	6,51E-02	3,51E-04	5,33E-01
ETP-fw	CTUe	9,58E+04	3,89E+00	5,20E+01	9,59E+04	9,34E+00	6,97E+00	ND	ND	ND	ND	ND	ND	ND	9,43E+00	2,47E+00	2,17E+02	3,70E+00	7,80E+01
HTP-c	CTUh	4,01E-06	5,24E-10	4,34E-09	4,01E-06	1,09E-09	9,36E-10	ND	ND	ND	ND	ND	ND	ND	7,10E-10	3,33E-10	9,39E-09	2,36E-11	3,42E-09
HTP-nc	CTUh	2,10E-04	2,06E-08	3,48E-07	2,10E-04	2,87E-08	2,04E-08	ND	ND	ND	ND	ND	ND	ND	3,76E-08	1,31E-08	2,92E-07	2,18E-09	3,15E-06
SQP	-	3,94E+04	2,21E+01	8,82E+01	3,95E+04	1,78E+01	8,57E+00	ND	ND	ND	ND	ND	ND	ND	3,31E+01	1,40E+01	6,48E+01	1,36E+00	-1,87E+02

- 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, cancer [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.

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.

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

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
HWD	kg	2,17E-02	2,00E-04	1,74E-03	2,36E-02	8,50E-04	7,27E-04	ND	ND	ND	ND	ND	ND	ND	4,40E-04	1,27E-04	3,65E-04	5,11E-06	-9,14E-03
NHWD	kg	3,56E+01	1,84E+00	1,21E+00	3,87E+01	8,59E-01	1,97E-01	ND	ND	ND	ND	ND	ND	ND	2,63E+00	1,17E+00	3,80E+00	3,83E+00	3,41E+00
RWD	kg	1,13E-02	9,04E-06	4,35E-04	1,17E-02	7,56E-05	6,91E-05	ND	ND	ND	ND	ND	ND	ND	2,34E-05	5,73E-06	5,01E-05	2,47E-07	3,62E-04
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,50E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	1,86E+00	1,86E+00	0,00E+00	1,34E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	6,57E+01	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	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	MJ	0,00E+00	0,00E+00	8,03E+00	8,03E+00	0,00E+00	3,29E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	1,70E+02	0,00E+00	0,00E+00
ETE	MJ	0,00E+00	0,00E+00	1,86E+01	1,86E+01	0,00E+00	7,63E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	3,94E+02	0,00E+00	0,00E+00

HWD = Hazardous Waste Disposed
 NHWD = Non Hazardous Waste Disposed
 RWD = Radioactive Waste Disposed
 CRU = Components for reuse
 MFR = Materials for recycling
 MER = Materials for energy recovery
 EEE = Exported Electrical Energy
 ETE = Exported Thermal Energy

RESOURCE USE per functional unit or declared unit (A1 and A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PERE	MJ	3,79E+02	4,77E-01	1,22E+02	5,01E+02	3,11E+00	1,77E+01	ND	ND	ND	ND	ND	ND	ND	1,15E+00	3,03E-01	2,67E+00	1,20E-02	-3,90E+00
PERM	MJ	6,12E+00	0,00E+00	0,00E+00	6,12E+00	0,00E+00	-1,49E+01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	3,85E+02	4,77E-01	1,22E+02	5,07E+02	3,11E+00	2,79E+00	ND	ND	ND	ND	ND	ND	ND	1,15E+00	3,03E-01	2,67E+00	1,20E-02	-3,90E+00
PENRE	MJ	5,92E+03	2,96E+01	1,80E+02	6,13E+03	1,27E+02	1,33E+02	ND	ND	ND	ND	ND	ND	ND	6,48E+01	1,88E+01	1,16E+03	7,40E-01	-8,60E+02
PENRM	MJ	1,20E+03	0,00E+00	-5,32E+01	1,15E+03	0,00E+00	-2,39E+01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	-1,13E+03	0,00E+00	0,00E+00
PENRT	MJ	7,12E+03	2,96E+01	1,27E+02	7,28E+03	1,27E+02	1,09E+02	ND	ND	ND	ND	ND	ND	ND	6,48E+01	1,88E+01	3,85E+01	7,40E-01	-8,60E+02
SM	kg	1,84E+01	0,00E+00	-2,82E-01	1,81E+01	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	-9,06E-01	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NSRF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m3	2,68E-01	0,00E+00	0,00E+00	2,68E-01	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

PERE	=	Use of renewable primary energy excluding renewable primary energy 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 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
NSRF	=	Use of non-renewable secondary fuels
FW	=	Use of net fresh water

BIOGENIC CARBON CONTENT per functional unit or declared unit (A1 and A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
BBCpr	kg C	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
BCCpa	kg C	-4,74E-01	0,00E+00	0,00E+00	-4,74E-01	0,00E+00	4,74E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

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

CALCULATION RULES

Cut off rules

All inputs and outputs for which data is available are included in the LCA. Data gaps are filled with conservative assumptions and average, generic or proxy data. No materials or processes have been excluded from the study. Capital goods and infrastructure at the production facility are excluded.

Data quality

It is assumed that the data quality of the information from the processes at the producer is higher than that of the other processes. Therefore, producer specific data is used when possible. These data are recent (2024), complete and based on one year averaged data. The technological coverage and geographical coverage reflect the physical reality of the product.

Data collection period

The dataset is representative for the production processes used in 2024.

Methodology and reproducibility

The process descriptions and quantities in this study are reproducible in accordance to the reference standards that have been used.

The background datasets and references have been documented in the background LCA report.

Allocation

No allocation of co-products was applied. The end-of-life system boundary of the product system is set where outputs of the system have reached the end-of-waste state.

Assumptions

Energy consumption is allocated based on information from the processing steps. The main materials of all products require cutting, sawing and lasering which are energy intensive activities, whereas the supporting materials require little energy input. The energy per product is allocated based on mass of the main components and the annual production numbers.

SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION

Product stage (A1-A3)

The processes in A1-A3 consists of the extraction and processing of raw materials, transportation of the raw materials, the manufacturing process and product packaging. The required energy for production, external treatments, ancillary materials, packaging material and production emissions are included. Energy consumption was modelled based on a mixture of Photovoltaic energy (32,32%) and the average residual energy mix (67,67%), with a Global Warming Potential (GWP-total) of 0.301 kg CO₂-eq/kWh.

Construction Stage (A4-A5)

This life cycle stage details all impacts related to the transport of product to the construction site and on-site activities related to installation.

Transport to construction site (A4); This study uses the default transport scenario for direct sales of EN 17213.

Assembly (A5); The installation scenario is based on the prescribed labour hours by MetacoN-Next for the installation of the doorsets. It is assumed that for production a power and impact drill are used with a total power of 1000 Watt. Next to that, an aerial working platform is used for installation. Packaging materials are disposed in this module.

End of life stage (C1-C4)

Default end-of-life scenario's from the Dutch Environmental Database have been applied. Steel is modelled as 5% landfilled and 95% recycling. The glassfibre reinforced plastic is assumed to be 100% incinerated.

Benefits and loads beyond the system boundary (D)

This life cycle stage covers the net benefits and loads arising from the reuse of products or the recycling or recovery of energy from waste materials. This study models the benefits and burdens of waste combustion using an electrical efficiency of 15,1% and thermal efficiency of 35%.

DECLARATION OF SVHC

This product does not contain any substances on the "Candidate List of Substances of Very High Concern for authorisation".

REFERENCES

EN 15804+A2: Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products, NEN-EN 15804:2012+A2:2019.

EN 17213: Windows and doors - Environmental Product Declarations - Product category rules for windows and pedestrian doorsets, NEN-EN17213:2020.
Dutch Environmental Database. (2024). Forfaitaire waarden afvalscenario's.

REMARKS

None