

# Environmental Product Declaration



In accordance with ISO 14025 and EN 15804:2012+A2:2019 for:

## **PriDrive power operated folding door** EPD of multiple products, based on the average results of the product group.

from

**Prido**



Programme:	The International EPD® System, <a href="http://www.environdec.com">www.environdec.com</a>
Programme operator:	EPD International AB
EPD registration number:	S-P-10533
Publication date:	2024-01-12
Valid until:	2029-01-12

*An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at [www.environdec.com](http://www.environdec.com)*



## General information

### Programme information

<b>Programme:</b>	The International EPD® System
<b>Address:</b>	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
<b>Website:</b>	<a href="http://www.environdec.com">www.environdec.com</a>
<b>E-mail:</b>	<a href="mailto:info@environdec.com">info@environdec.com</a>

### Accountabilities for PCR, and independent, third-party verification

#### Product Category Rules (PCR)

CEN standard EN 15804 serves as the Core Product Category Rules (PCR)

Product Category Rules (PCR): *PCR 2019:14 Construction products (EN 15804+A2) (1.3.2)*

PCR review was conducted by: *The PCR was developed within CEN standardisation, and adopted as a c-PCR by the International EPD® System. There was thus no additional open consultation period and no additional review in addition to those within standardisation.*

#### Third-party verification

Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:

EPD verification by individual verifier

Third-party verifier: Martin Erlandsson, IVL Svenska Miljöinstitutet



Approved by: The International EPD® System

Procedure for follow-up of data during EPD validity involves third party verifier:

Yes       No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but from different programmes may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804. For further information about comparability, see EN 15804 and ISO 14025.

## Company information

**Owner of the EPD:** Prido  
Industrigatan 3,  
SE-534 92 Tråvad  
The EPD owner has the sole ownership

**Contact:** Carl Lund  
[+46\(0\)72-146 06 88](tel:+46(0)72-146 06 88)  
[Carl.Lund@Prido.se](mailto:Carl.Lund@Prido.se)

**Description of the organisation:** In a highly automated and state-of-the-art facility, situated in the middle of the Swedish province of Västergötland, Prido produces more than 13,500 high-quality industrial doors every year, making them one of Europe's largest folding door manufacturers. Founded in 1973, Prido has more than 45 years of experience in the field of industrial doors. By gathering development and production under the same roof, the production achieves economies of scale that offer unique competitive advantages, in terms of both costs and quality. Prido's industrial doors provide quality, technology and design combined with low purchase and maintenance costs.

**Name and location of production site:** Prido has one production site in Tråvad, at Industrigatan 3, SE-534 92 Tråvad.



## Product information

**Product name:** PriDrive power operated folding door

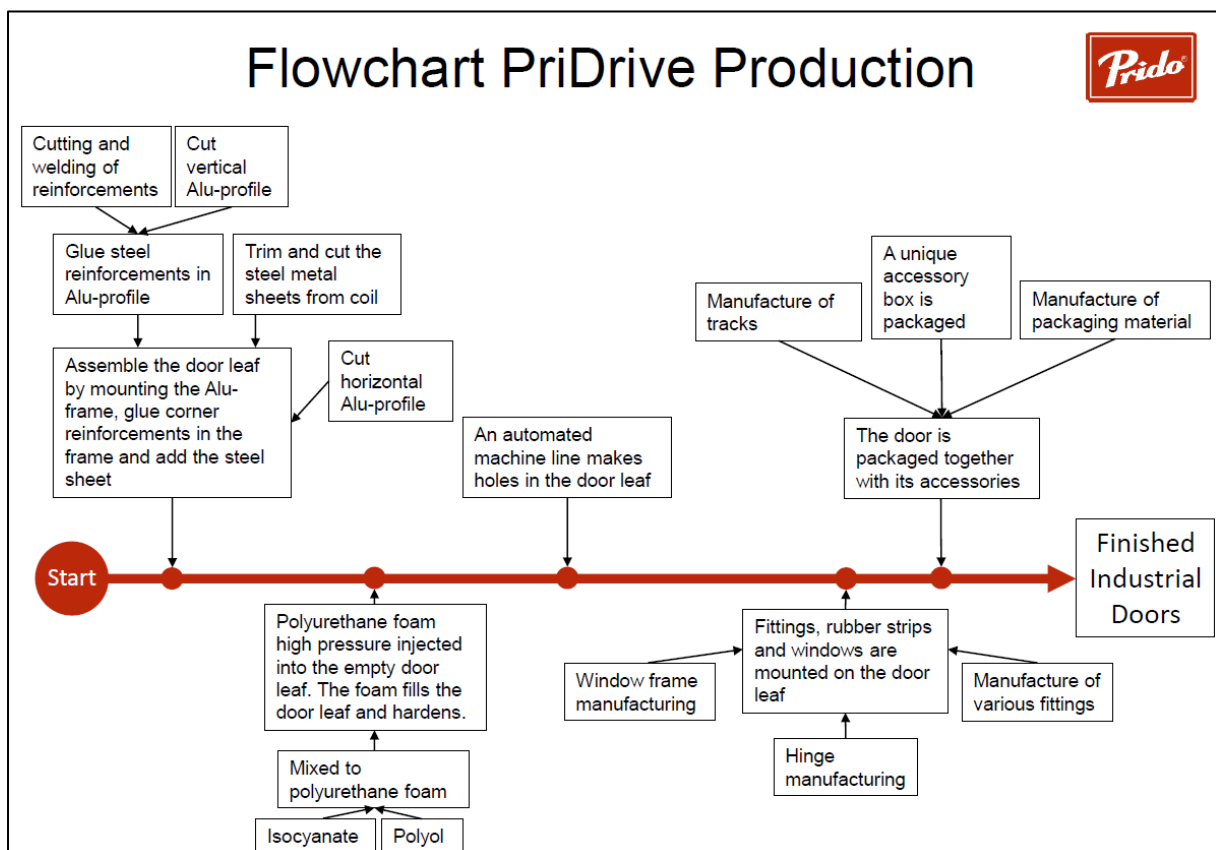
**Product identification:** EN13241

**Product description:** PriDrive power operated folding door consisting of door sections covered in steel sheet, frame of natural anodised aluminium profiles and insulation of polyurethane foam. The door is delivered with Power operated related components.

A frame is built from natural anodised aluminium profile and reinforced with steel. The frame is covered with hot-dip galvanized and factory-painted steel sheet. The frame is insulated with high-pressure-injected polyurethane foam. Drilling and milling are then done on the door leaf in an automated way. Rubber strips, hinges and windows are mounted on the door leaf and finally the door is packaged together with a drive unit and control box before transport.

**UN CPC code:** 4212

**Geographical scope:** Sweden



## LCA information

**Declared unit (representative product):** PriDrive power operated folding door 4x4 m with four windows (1,66 m<sup>2</sup>)

The EPD includes following products:

- PriDrive power operated folding door 4x4 m with four windows (1,66 m<sup>2</sup>)
- PriDrive power operated folding door 4x4,5 m with four windows (1,66 m<sup>2</sup>).

The calculations for the representative product for PriDrive power operated folding door is based on a 4 x 4-meter industrial door with four windows each 0,48 x 0,862 meter. An industrial door with these specifications has a weight of 403 kg. The industrial door is delivered with packaging with a weight of 7,5 kg.

The result from the representative product (GWP total, A1-A3) is possible to scale with a conversion factor for a PriDrive power operated folding door 4x4,5 m with four windows (1,66 m<sup>2</sup>). The conversion factor is presented in the chapter of Additional Environmental Information, see page 12.

Notice if you are interested in environmental information for other dimensions and version of PriDrive power operated folding door, please contact your seller at Prido. Also notice that information and results for other versions are not covered by this EPD, neither are verified

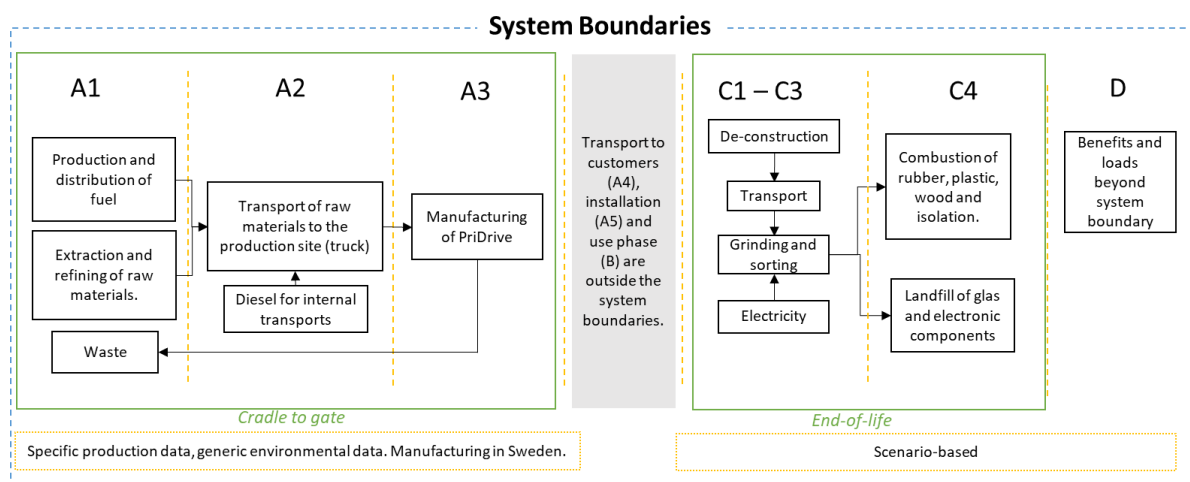
**Reference service life:** Durability 1 000 000 cycles according to EN13241.

**Time representativeness:** Data is representative for production year 2021. For materials, energy and transports, generic industry data from Ecoinvent and Agri-footprint has been used. The sales data that are used to the choice of representative product is representative for the year 2022.

**Databases and LCA software used:** Ecoinvent 3.8, Agri-footprint and SimaPro 9.3.0.3

**Description of system boundaries:** Cradle to gate with modules C1–C4 and module D (A1–A3 + C + D).

**System diagram:**



**Estimates and assumptions:** Heat, electricity and other energy use as well as waste in the production are calculated as a weighted average per produced tonne of all products using yearly production data and rate for 2021. No assumptions made.

The variation in material composition for different mixes and the related environmental impact is within +/- 10 % compared to the given average in this EPD.

**Cut off criteria:** All major materials, production energy use and waste are included. Materials less than 1 % weight in the product are not considered.

**Data quality:** The data quality can be described as fair for waste estimations and transports and good for other data. The primary data collection has been done thoroughly and all relevant flows are considered.

**Electricity:** The energy source for electricity in the manufacturing process (A1-A3) is the residual electricity mix on the market in Sweden. The climate impact (GWP-GHG indicator) for used dataset is 0,044 kg CO2 eq./kWh.

**Modules declared, geographical scope, share of specific data (in GWP-GHG indicator) and data variation:**

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	x	x	x	ND	ND	ND	ND	ND	ND	ND	ND	ND	x	x	x	x	X
Geography	GLO	GLO	SE	-	-	-	-	-	-	-	-	-	SE	SE	SE	SE	SE
Specific data used	6 %*			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	13 %*			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	Only one site			-	-	-	-	-	-	-	-	-	-	-	-	-	-

\*Based on GWP-GHG results.

### Scenario Based Calculation:

Module C and D is calculated based on a scenario. The scenario is created based on how Prido recommends their customers to deal with the product at its end-of-life stage.

**Module C** –The industrial door is disassembled from its place of use, by unscrewing screws (module C1). The impact from this stage, module C1, is neglectable due to its low impact. Ecolid is then transported to a recycling centre, 170 km by truck (module C2). At the recycling centre a grinding process takes place which separates the aluminium, steel, glass and combustible materials. The combustible materials, isolation, wood, rubber and cardboard, are combusted in a thermal power plant (module C3). The glass from the windows and electronic components is landfilled (C4).

**Module D** – In this module the circular benefits arise due to circular functions in the system. The aluminium and steel in the product get material recycled and replace primary steel in steel production. The scrap content in the ingoing material is considered, and only the part of the new steel provides benefits. The combustion in C3 provides benefits by replacing other electricity in the electricity grid. It is assumed that the produced energy from the combustion replaces a Swedish mix of the electricity.

## Content information

<b>PriDrive power operated folding door 4x4 m with four windows (1,66 m<sup>2</sup>)</b>	<b>Weight, kg</b>	<b>Post-consumer material, weight-%</b>	<b>Renewable material, weight-%</b>
Steel	249,2		
Aluminium	57,6		
Isolation	37,1		
Copper	3,6		
Rubber	16,3		
Plastic	6,0		
Electronics	0,5		
Bronze	0,5		
Glas	32,9		
<b>TOTAL</b>	<b>403,7</b>		
<b>Packaging materials PriDrive power operated folding door</b>	<b>Weight, kg</b>	<b>Weight-% (versus the product)</b>	
Carton	1,6	0,4	
Plastic	0,3	0,1	
Wood	1,5	0,4	
Steel	5,16	1,3	
<b>TOTAL</b>	<b>8,6</b>	<b>2,1</b>	
<b>Dangerous substances from the candidate list of SVHC for Authorisation</b>	<b>EC No.</b>	<b>CAS No.</b>	<b>Weight-% per functional or declared unit</b>
Total*			

\*No dangerous substances from the candidate list of SVHC for Authorisation.

<b>End-of-life (C1-C4)</b>	<b>Unit (per declared unit)</b>	<b>Weight</b>
Collection processes specified by type	kg collected separately	404
	kg collected with mixed construction waste	0
Recovery system specified by type	kg for re-use	0
	kg for recycling	311
	kg for energy recovery	59
Disposal specified by type	kg product or material for final deposition	33
Assumptions for scenario development e.g. transportation	km	30 <sup>1</sup> 150 <sup>2</sup>

<sup>1</sup> The average transport distance to recycling centre is assumed to 30 km.

<sup>2</sup> The average transport distance from the recycling centre to the fragmentation is assumed to 150 km.



# Environmental Information per PriDrive power operated folding door (representative product)

## Potential environmental impact – mandatory indicators according to EN 15804

Results per • PriDrive power operated folding door 4x4 m with four windows (1,66 m <sup>2</sup> )										
Indicator	Unit	A1	A2	A3	Tot.A1-A3	C1	C2	C3	C4	D
GWP-fossil	kg CO <sub>2</sub> eq.	1,40E+03	3,25E+01	2,01E-06	<b>1,43E+03</b>	0,00E+00	2,75E+00	3,38E+01	3,85E-01	-8,18E+01
GWP-biogenic**	kg CO <sub>2</sub> eq.	4,20E+01	5,82E-02	5,87E+00	<b>4,79E+01</b>	0,00E+00	9,05E-04	4,73E+01	7,53E-01	-6,28E-01
GWP-luluc	kg CO <sub>2</sub> eq.	2,02E+00	1,79E-02	9,56E-12	<b>2,04E+00</b>	0,00E+00	5,10E-04	6,85E-02	3,51E-04	-6,02E-01
GWP-total	kg CO <sub>2</sub> eq.	1,44E+03	3,26E+01	2,01E-06	<b>1,48E+03</b>	0,00E+00	2,75E+00	8,12E+01	1,14E+00	-6,50E+01
ODP	kg CFC 11 eq.	8,95E-05	6,38E-06	3,14E-13	<b>9,59E-05</b>	0,00E+00	3,03E-07	4,38E-07	1,06E-07	-2,08E-06
AP	mol H <sup>+</sup> eq.	1,05E+01	2,79E-01	6,11E-09	<b>1,08E+01</b>	0,00E+00	1,44E-02	2,69E-02	2,96E-03	-3,25E+00
EP-freshwater	kg P eq.	7,03E-01	3,79E-03	6,43E-11	<b>7,07E-01</b>	0,00E+00	8,42E-05	2,82E-03	1,40E-04	-1,39E-01
EP-marine	kg N eq.	1,65E+00	7,29E-02	8,44E-10	<b>1,73E+00</b>	0,00E+00	5,87E-03	1,39E-02	1,55E-03	-2,59E-01
EP-terrestrial	mol N eq.	1,67E+01	8,02E-01	9,17E-09	<b>1,75E+01</b>	0,00E+00	6,43E-02	1,11E-01	1,11E-02	-2,54E+00
POCP	kg NMVOC eq.	5,79E+00	2,23E-01	3,21E-09	<b>6,01E+00</b>	0,00E+00	1,69E-02	2,80E-02	3,42E-03	-6,63E-01
ADP-minerals&metals*	kg Sb eq.	1,38E-01	9,37E-05	1,14E-13	<b>1,38E-01</b>	0,00E+00	4,57E-06	2,47E-05	1,13E-06	-7,35E-02
ADP-fossil*	MJ	1,88E+04	4,84E+02	2,78E-05	<b>1,93E+04</b>	0,00E+00	4,00E+01	1,60E+02	8,16E+00	-8,12E+02
WDP	m <sup>3</sup>	4,01E+03	2,11E+00	1,99E-05	<b>4,02E+03</b>	0,00E+00	6,43E-02	5,76E+00	3,54E-01	8,16E+04
Acronyms	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 Exceedance; 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 Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption									

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

\*\*Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>. Energy stored in packing material is direct balanced out in A1.

## Potential environmental impact – additional mandatory and voluntary indicators

### Results per • PriDrive power operated folding door 4x4 m with four windows (1,66 m<sup>2</sup>)

Indicator	Unit	A1	A2	A3	Tot.A1-A3	C1	C2	C3	C4	D
GWP-GHG <sup>3</sup>	kg CO <sub>2</sub> eq.	1,39E+03	3,27E+01	2,01E-06	<b>1,43E+03</b>	0,00E+00	2,73E+00	3,39E+01	3,79E-01	-3,87E+01

*Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017*

## Use of resources

### Results per • PriDrive power operated folding door 4x4 m with four windows (1,66 m<sup>2</sup>)

Indicator	Unit	A1	A2	A3	Tot.A1-A3	C1	C2	C3	C4	D
PERE	MJ	1,85E+03	1,30E+01	8,24E-08	<b>1,86E+03</b>	0,00E+00	3,04E-01	5,45E+01	1,39E-01	6,85E+01
PERM	MJ	5,42E+01	0,00E+00	0,00E+00	<b>5,42E+01</b>	0,00E+00	0,00E+00	-5,42E+01	0,00E+00	0,00E+00
PERT	MJ	1,90E+03	1,30E+01	8,24E-08	<b>1,91E+03</b>	0,00E+00	3,04E-01	3,38E-01	1,39E-01	6,85E+01
PENRE	MJ	2,05E+04	5,16E+02	2,95E-05	<b>2,10E+04</b>	0,00E+00	4,25E+01	1,63E+02	8,68E+00	-2,66E+02
PENRM	MJ	1,80E+03	0,00E+00	0,00E+00	<b>1,80E+03</b>	0,00E+00	0,00E+00	-1,73E+03	-6,96E+01	0,00E+00
PENRT	MJ	2,23E+04	5,16E+02	3,32E+00	<b>2,28E+04</b>	0,00E+00	4,25E+01	-1,57E+03	-6,09E+01	-2,66E+02
SM	kg	7,00E+01	0,00E+00	0,00E+00	<b>7,00E+01</b>	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	1,70E-21	0,00E+00	0,00E+00	<b>1,70E-21</b>	0,00E+00	0,00E+00	8,25E-02	0,00E+00	0,00E+00
NRSF	MJ	2,00E-20	0,00E+00	0,00E+00	<b>2,00E-20</b>	0,00E+00	0,00E+00	8,25E-02	0,00E+00	0,00E+00
FW	m <sup>3</sup>	4,00E+03	2,10E+00	2,56E-02	<b>4,00E+03</b>	0,00E+00	6,46E-02	5,70E+00	3,54E-01	8,11E+04

Acronyms 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 = Use of net fresh water

<sup>3</sup> The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

## Waste production and output flows

### Waste production

Results per • PriDrive power operated folding door 4x4 m with four windows (1,66 m <sup>2</sup> )										
Indicator	Unit	A1	A2	A3	Tot.A1-A3	C1	C2	C3	C4	D
Hazardous waste disposed	kg	1,27E+00	0,00E+00	1,60E-01	<b>1,43E+00</b>	0,00E+00	0,00E+00	0,00E+00	3,34E+01	0,00E+00
Non-hazardous waste disposed	kg	1,81E+00	0,00E+00	0,00E+00	<b>1,81E+00</b>	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Radioactive waste disposed	kg	3,86E-03	0,00E+00	0,00E+00	<b>3,86E-03</b>	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

### Output flows

Results per • PriDrive power operated folding door 4x4 m with four windows (1,66 m <sup>2</sup> )										
Indicator	Unit	A1	A2	A3	Tot.A1-A3	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	<b>0,00E+00</b>	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	5,79E-01	0,00E+00	1,65E+01	<b>1,71E+01</b>	0,00E+00	0,00E+00	3,11E+02	0,00E+00	0,00E+00
Materials for energy recovery	kg	4,62E-03	0,00E+00	3,52E+00	<b>3,52E+00</b>	0,00E+00	0,00E+00	5,94E+01	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	<b>0,00E+00</b>	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,56E+02
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	<b>0,00E+00</b>	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,67E+03

### Information on biogenic carbon content

Results per • PriDrive power operated folding door 4x4 m with four windows (1,66 m <sup>2</sup> )		
BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	1,43E+00

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>. Energy stored in packing material is direct balanced out in A1.

## Additional Environmental information

### Conversion factors

To scale the results from the representative product (A1-A3) to the version of PriDrive power operated folding door with the dimensions 4 x 4,5 m and windows, use the factor in the table below.

Product	Conversion Factor	Results GWP total, A1-A3 (kg CO2 eq)
PriDrive power operated folding door 4x4,5 m with windows (1,66 m2).	1,09	1,62E+03

### Environmental Information about other versions of PriDrive power operated folding door

If you are interested in environmental information for other dimensions and version of PriDrive power operated folding door, please contact your seller at Prido.

Notice that information and results for other versions are not covered by this EPD, neither are verified.

### Justification of the representative product

The choice of the representative product is based on following argument:

- The main product volume is within the dimensions 4000-4500 (width) X 4250-4750 (height) m
- The standard in the industry is to compare 4x4 m doors, which is why it is considered as the best representative dimension.

## References

General Programme Instructions of the International EPD® System. Version 4.

PCR 2019:14 Construction products (EN 15804+A2) (1.3.2)

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

c-PCR Windows and doors 2020-04-09.




Bergström, Malin. LCA Report PriDrive power operated folding door (multiple products)

Ecoinvent 3.8 database, <http://www.ecoinvent.org/>

Agri-footprint database, <https://www.agri-footprint.com/>

LCA software SimaPro Analyst 9.3.0.3

## Contact information

EPD owner:	 Prido Industrigatan 3, SE-534 92 Tråvad  Carl Lund, <a href="mailto:Carl.Lund@Prido.se">Carl.Lund@Prido.se</a> +46(0)72-146 06 88
LCA author:	 WSP Sverige AB, <a href="http://www.wsp.com">www.wsp.com</a> Malin Bergström, <a href="mailto:malin.bergstrom@wsp.cpm">malin.bergstrom@wsp.cpm</a> +46(0) 10 721 60 39
Programme operator:	 EPD International AB <a href="mailto:info@environdec.com">info@environdec.com</a>

