



COL·LEGI D'APARELLADORS,  
ARQUITECTES TÈCNICS  
I ENGINYERS D'EDIFICACIÓ  
DE BARCELONA

**Product**

## THERMAL BREAK ANODIZED/COATED ALUMINIUM WINDOWS

**Owner****Product description**

This EPD shows different windows assembled from anodized/coated extruded aluminum profiles with thermal break manufactured by CORTIZO. The declared products are specific to the different series designed by the company, among which are hinged and sliding windows with different glazing.

**PCR Reference**

RCP100. Productos de construcción en general. Version 2 – 29.02.2016

**Production plant**

The production of the aluminum profiles is carried out at the CORTIZO facilities in Padrón (La Coruña). Part of the aluminum billet used in the manufacture of the profiles is produced in Mieres (Asturias). The assembly of the windows is carried out in carpentry throughout Spain.

**Validity**

From: 22/10/2020 To: 22/10/2025

The validity of DAPcons® 100.026 is subject to the conditions of the DAPcons® regulation. The current edition of this DAPcons® is the one that appears in the registry maintained by CAATEEB; for information purposes, it is incorporated into the website of the Program [www.csostenible.net](http://www.csostenible.net)

# ENVIRONMENTAL PRODUCT DECLARATION

## THERMAL BREAK ANODIZED/COATED ALUMINIUM WINDOWS

### EXECUTIVE SUMMARY

<p><b>PROGRAMME OPERATOR DAPconstrucción®</b> Environmental product declarations of construction sector <a href="http://www.csostenible.net">www.csostenible.net</a></p>	
<p><b>Administrator of Programme Operator</b> Col·legi d'Aparelladors, Arquitectes Tècnics de Barcelona i Enginyers de l'Edificació (CAATEEB) Bon Pastor, 5 · 08021 Barcelona <a href="http://www.apabcn.cat">www.apabcn.cat</a></p>	
<p><b>Owner of the Declaration</b> ALUMINIOS CORTIZO, S.A.U. - Extramundi, S/N. 15910 - Padrón (A Coruña) España</p>	
<p><b>Declaration carried out by:</b> IDNÓVAM - Ferraz, 56, Bajo, 28008 Madrid</p>	
<p><b>Declaration Number</b> DAPcons®. 100.026</p>	
<p><b>Declared Product</b> THERMAL BREAK ANODIZED/COATED ALUMINIUM WINDOWS</p>	
<p><b>Product description</b> The declared windows include various series manufactured with coated/anodized aluminum profiles, with thermal bridge break and with different glazings. Windows are both hinged and sliding.</p>	
<p><b>Registration date</b> 22/10/2020</p>	
<p><b>Validity</b> This verified declaration authorises the owner to use the DAPcons® eco-label logo. The declaration is applicable exclusively to the product in question and for five years as of the date of registration. The responsible for the information contained in this declaration is: CORTIZO</p>	
<p><b>Endorsed by CAATEEB</b>  Celestí Ventura Cisternas, President of the CAATEEB</p>	<p><b>Endorsed by authorised verifier</b>  Mr. Ferran Pérez, Verifier accredited by the DAPconstruction Program</p>
<p>This environmental product declaration complies with standards ISO 14025 and UNE EN 15804 + A1 and contains information of an environmental nature about the life cycle of Thermal break anodized/coated aluminium windows. The aluminum profiles is carried out at the CORTIZO facilities in Padrón (La Coruña). Part of the aluminum billet used in the manufacture of the profiles is produced in Mieres (Asturias). This declaration is based on the document RCP100 - v2 [2016] - Productos de la construcción en general. The environmental product declaration (DAPcons®) may not be comparable to another EPD if it is not based on the UNE EN 15804 + A1 standard.</p>	

# ENVIRONMENTAL PRODUCT DECLARATION

## 1. PRODUCT DESCRIPTION AND APPLICATION

The windows consist of a frame assembled from aluminum profiles with thermal bridge break (TBB). The TBB is made by means of a reinforced polyamide strip sandwiched between two aluminum profiles. The sashes with insulating glass units (IGU) are also assembled from aluminum profiles.

Sash and frame are assembled using alignment brackets, joint brackets, fasteners, and other components known as fittings. Among these are also the systems that allow the opening of the leaf (handle, hinges, tilt-and-turn mechanism, etc.). To guarantee the air and water tightness of the window, gaskets made of EPDM and other plastic materials are installed.

The declared windows include various series made with TBB coated / anodized aluminum profiles, with different glazing.

The results of this EPD are representative for the following products: hinged windows, series COR 3500, COR 60, COR 60HO, COR 70, COR 70 HO, COR 80 and COR 80 HO; and sliding windows, series 4200 and 4900.

Windows are used as an enclosure for holes in building facades, although they can also be installed indoors.

The main technical characteristics of the products included in the EPD are shown below.



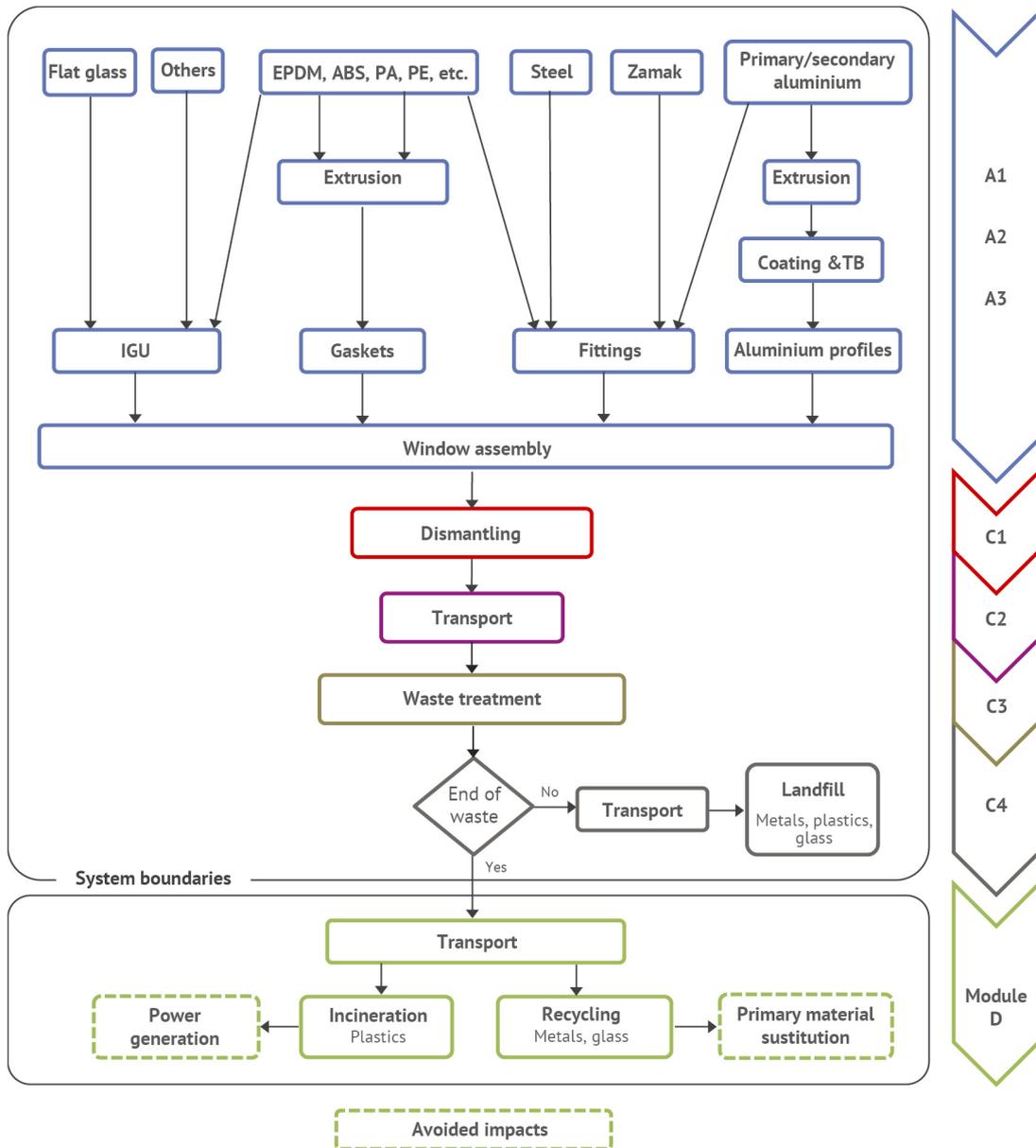
**TECHNICAL CHARACTERISTICS**

	IGU	Thermal insulation frame-sash Uf (W/m²K)	Thermal insulation Uw (W/m²K)	Air tightness	Water tightness	Acoustic insulation (Rw)	Wind load resistance
		UNE-EN 10077-2	UNE-EN 10077-2	UNE-EN 12207	UNE-EN 12208	UNE-EN ISO 12354	UNE -EN 12210
<b>COR 3500</b>	6/12Arg/5 BE	2,7	2,1	4	E1200	34 dB	C5
<b>COR 60</b>	6/12Arg/4 BE	2,8	2,1	4	E1200	35 dB	C5
<b>COR 60HO</b>	6/14Arg/4 BE	3,6	2,1	4	9A	35 dB	C5
<b>COR 70</b>	6/16Arg/33.1 BE	1,9	1,7	4	E1200	39 dB	C5
<b>COR 70HO</b>	5/18Arg/44.1 BE	2,0	1,7	4	E1650	40 dB	C5
<b>COR 80</b>	6/16Arg/4/14Arg/44.1 BE	1,5	1,7	4	E1950	42 dB	C5
<b>COR 80HO</b>	5/12Arg/4/12Arg/44.1 BE	1,7	1,6	4	E1650	39 dB	C5
<b>4200</b>	6/12Arg/4 BE	4,0	2,6	3	7A	33 dB	C5
<b>4900</b>	6/12Arg/4/10Arg/4 BE	2,7	2,0	4	7A	35 dB	C5

**COMPOSITION**

Material (kg)	Componente	COR 3500	COR 60	COR 60HO	COR 70	COR 70 HO	COR 80	COR 80 HO	4200	4900
Flat glass	IGU	19,2	19,4	21,6	19,2	17,2	31,9	31,0	19,4	32,7
Flat glass (low-e)	IGU	16,0	12,9	14,4	19,2	27,5	25,5	27,5	12,9	13,1
Aluminium	Profiles	17,9	20,5	14,8	19,7	15,9	19,3	15,9	15,8	14,6
Aluminium	Gasket & fittings	1,44	1,56	1,34	1,63	1,68	1,51	1,60	0,41	0,20
Aluminium	IGU	0,39	0,39	0,45	0,47	0,53	0,75	0,65	0,39	0,58
Steel	Gasket & fittings	0,03	0,03	0,03	0,03	0,02	0,02	0,02	0,08	0,00
Stainless steel	Gasket & fittings	0,53	0,53	0,52	0,53	0,51	0,33	0,51	0,07	0,50
Zamak	Gasket & fittings	0,97	1,06	0,92	0,89	1,13	1,00	1,13	0,70	0,00
TBB	Profiles	2,63	2,41	1,09	3,70	3,83	5,94	5,57	1,27	2,67
Coating powder	Profiles	0,95	1,01	0,66	1,02	0,72	0,99	0,72	0,75	0,76
EPDM	Gasket & fittings	2,07	2,58	1,81	3,23	2,14	3,98	2,98	0,00	2,24
PA	Gasket & fittings	0,03	0,22	0,03	0,31	0,02	0,40	0,02	0,01	0,00
PB	IGU	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01
PE	Gasket & fittings	0,10	0,10	0,03	0,11	0,05	0,10	0,06	0,00	0,03
PP	Gasket & fittings	0,00	0,00	0,03	0,00	0,00	0,00	0,00	1,41	0,34
PVB	IGU	0,00	0,00	0,00	0,53	0,57	0,53	0,57	0,00	0,00
PVC	Gasket & fittings	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1,13	2,28
Polysulfide	IGU	0,45	0,45	0,55	0,60	0,70	1,13	0,93	0,45	0,82
TPV	Gasket & fittings	0,02	0,00	0,00	0,00	0,00	0,16	0,16	0,00	0,00
TPE	Gasket & fittings	0,03	0,03	0,03	0,04	0,04	0,03	0,05	0,00	0,00
TPC	Gasket & fittings	0,00	0,00	0,65	0,00	0,64	0,00	0,64	0,00	0,00
Zeolite	IGU	0,77	0,77	0,94	1,02	1,19	1,92	1,58	0,76	1,40
Argon	IGU	0,02	0,03	0,03	0,03	0,04	0,06	0,05	0,03	0,05

**SYSTEM BOUNDARIES**



## 2. LIFE CYCLE PHASES DESCRIPTION

### 2.1. Manufacture (A1, A2 and A3)

#### Raw materials (A1 and A2)

The manufacture of aluminum profiles begins with the extraction and processing of minerals for the production of primary aluminum that constitutes, together with secondary aluminum, the main input. CORTIZO receives primary and secondary aluminum from national and international suppliers, also producing secondary aluminum in the facility in Mieres. The rest of the raw materials necessary for the manufacture of the profiles are also received (TBB, coating powder, etc.).

In turn, the windows consist of other components such as IGU, fittings and gaskets made with different materials, including glass, aluminum, steel, stainless steel, EPDM, etc. With the exception of IGU, these components are received at the CORTIZO facilities for subsequent distribution together with the manufactured profiles.

#### Manufacturing (A3)

Aluminum profiles are produced by extrusion of preheated aluminum billets which, due to plastic deformation, are forced to pass through a die in order to produce profiles with different sections. The extruded profiles are then cooled while the ends are clamped in order to straighten them during the cooling. Later they are cut to the desired length and go to a ripening oven to increase their hardness.

The profiles can have different surface finishes: anodized and coated. Anodizing is a process carried out by electrolysis by which oxidation of the aluminum surface occurs. Previously, the aluminum surface has to be prepared by immersing the profiles in several baths containing different chemical substances (degreasing, neutralized, etc.). After anodizing, the profiles also undergo another baths with dissolved chemical substances to improve the durability of the oxide layer formed (sealing) as well as change its color (coloration).

In coating the profiles are subjected to baths in different solutions to prepare the surface for the application of the paint (degreasing, acid attack, toning and conversion). Later, coating powder is electrostatically applied to the surface of the profile and then hardened by means of polymerization in ovens at a temperature of around 200 ° C.

Finally the TBB profiles are inserted. The profiles, fittings and gaskets are transported from the CORTIZO facilities first to distribution centers and later on request to the workshops and carpentry where the windows are assembled. In these facilities, aluminum profiles are cut and machined and assembled with the rest of the components.

The IGU is mounted on the glassware and is sent directly to the construction site where it is mounted once the window has been installed.



## 2.2. Construction (A4 and A5)

Module Not Declared

## 2.3. Product use (B1-B7)

Module Not Declared

## 2.4. End-of-life (C1-C4)

C1 - In the consulted life cycle databases, no information was found for the dismantling operations of elements such as windows, exterior doors or facades Nor has any bibliography been found on the inputs or residues associated with these operations. Therefore it has been estimated that the contribution of this module is null.

C2 - A distance of 200 km has been assumed for transport to scrap metal dealers.

C3 - It has been assumed that the electricity consumed during the scrapping of the facades for the recovery of the different fractions is the same as during their assembly.

C4 - End-of-life scenarios, final destination, recovery rates and recycling efficiencies of the different material fractions have been designed based on the default values of UNE EN 17213.

Metals: recycling, 95% - landfill, 5%

Plastics: energy valorization, 95% - landfill, 5%

Glass: landfill, 70% - recycling, 30%

## 2.5. Benefits and loads beyond the system boundary (D)

When an aluminum construction product reaches the end of its useful life, it is collected extensively and sent to recycling centers for the production of secondary aluminum billet. The recovery rate of aluminum products in the construction sector is by default 95% (UNE EN 17213). The final recycling rate is also dependent on the performance in the smelting furnace which includes metal losses during scrap preparation and melting.

In order to obtain the net exit of aluminum from the system at the end of the useful life of the profiles, the scrap inputs in the production stage are subtracted from the scrap sent for recycling at the end of its useful life. Module D declares the loads and environmental benefits of recycling this net scrap that leaves the system (EN 15804). These environmental aspects have been evaluated up to the point of functional equivalence, that is, the obtaining of secondary aluminum billet that allows the substitution of primary aluminum.

This criterion also applies to the other metals and glass in windows that are sent for recycling.

Metal recovery rate, 95%

Plastics recovery rate, 95%, efficiency in plastics energy valorization, 60%

Glass recovery rate, 30%

### 3. LIFE CYCLE ASSESSEMENT

The life cycle analysis on which this statement is based has been carried out following the ISO 14040 and ISO 14044 standards. In the same way, the EN 15804: 2012 + A1: 2014 standard has been met, as well as the UNE EN 17213: 2020 standard for doors and windows. This DAP is of the “cradle to gate with options” type, stating the stages of manufacture of the product and its end of life.

Specific data from the CORTIZO plants (Padrón in La Coruña and Mieres in Asturias corresponding to the years 2017, 2018 and 2019 have been used for the manufacture of the aluminum profiles. The data for the IGU, fittings, joints and other aspects Environmental conditions during window assembly are based on information updated to 2020.

#### 3.1. Declared unit

The declared unit is 1 m<sup>2</sup> of enclosure for facade openings (windows) with the technical characteristics shown in point 1 and a reference useful life of 30 years.

According to the UNE EN 17213 standard, the indicators declared in this EPD have been calculated from a standard size window of 1.23 m x 1.48 m. To obtain the environmental impacts and other parameters referred to 1 m<sup>2</sup> of product, these indicators were divided by the area of the window (1.84 m<sup>2</sup>).

#### 3.2. System boundary

Table 2. Declared modules

Fabricación			Construction Process Stage		Use stage							End of life stage				Benefits and loads beyond the system boundaries
Raw materials supply	Transport	Manufacturing	Transport	Construction – Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational Energy use	Operational water use	De-construction	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	MND	MND	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X

X = Included in LCA MND = Module Not Declared

### 3.3. Data analysis for the life cycle (ACV)

#### INDICATORS OF THE ENVIRONMENTAL IMPACT

##### COR 3500 ANODIZED WINDOW 1m<sup>2</sup>

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Climatic Change - total	kg CO <sub>2</sub> eq	1,47E+02	MND	MND	0	6,20E-01	5,07E-01	2,38E-01	-3,73E+01
Climatic Change - fossil	kg CO <sub>2</sub> eq	1,47E+02	MND	MND	0	6,20E-01	5,05E-01	2,38E-01	-3,73E+01
Climate change - biogenic	kg CO <sub>2</sub> eq	1,49E-01	MND	MND	0	0	4,06E-04	3,43E-05	-2,67E-02
Climate change - land use and land use change	kg CO <sub>2</sub> eq	1,66E-01	MND	MND	0	0	1,85E-03	6,45E-06	-3,15E-02
Ozone depletion	kg CFC-11 eq	1,18E-05	MND	MND	0	9,49E-10	5,90E-08	3,89E-08	-5,22E-07
Acidification	mol H <sup>+</sup> eq	1,08E+00	MND	MND	0	4,14E-03	3,96E-03	1,33E-03	-3,01E-01
Eutrophication aquatic freshwater	kg PO <sub>4</sub> <sup>3-</sup> eq	1,30E-01	MND	MND	0	6,66E-04	6,25E-04	1,12E-03	-1,93E-02
Eutrophication aquatic marine	kg N eq	1,61E-01	MND	MND	0	1,95E-03	5,65E-04	6,47E-04	-4,32E-02
Eutrophication terrestrial	mol N eq	1,65E+00	MND	MND	0	2,14E-02	5,81E-03	6,18E-03	-4,82E-01
Photochemical ozone formation	kg NMVOC eq	4,68E-01	MND	MND	0	5,42E-03	1,62E-03	1,73E-03	-1,28E-01
Abiotic resource depletion - minerals and metals	kg Sb eq	4,02E-03	MND	MND	0	2,44E-08	3,70E-07	1,22E-07	-3,11E-03
Abiotic resource depletion - fossils	MJ	2,13E+03	MND	MND	0	8,63E+00	9,46E+00	3,68E+00	-4,91E+02
Water use	m <sup>3</sup> eq	4,75E+00	MND	MND	0	6,50E-03	2,03E-01	4,62E+00	5,81E+00
Particulate matter emissions	disease inc.	1,45E-05	MND	MND	0	6,50E-08	1,64E-08	3,45E-08	-5,90E-06
Ionising radiation	kBq U235 eq	3,45E+01	MND	MND	0	2,74E-03	3,85E-01	1,83E-02	-1,21E+01
Ecotoxicity - freshwater	CTUe	1,75E+03	MND	MND	0	3,61E-02	7,16E+00	2,26E+01	-2,17E+02
Human toxicity, cancer effects	CTUh	1,68E-05	MND	MND	0	5,83E-10	3,04E-08	1,42E-08	-1,20E-06
Human toxicity, non-cancer effects	CTUh	8,22E-05	MND	MND	0	3,53E-09	1,33E-07	2,50E-07	-3,87E-05
Land use	Pt	1,33E+03	MND	MND	0	0	7,34E+00	6,59E+00	-1,44E+02

A1. Raw materials supply  
A2. Transport  
A3. Manufacturing Product  
A4. Transport  
A5. Construction - Installation process

B1. Use  
B2. Maintenance  
B3. Repair  
B4. Replacement  
B5. Refurbishment  
B6. Operational Energy use  
B7. Operational water use

C1. Decosntruction and demolition  
C2. Transport  
C3. Waste management for reuse, recovery and recycling.  
C4. Disposal

MND. Module not declared

INDICATORS OF RESOURCES USE

**COR 3500 ANODIZED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Renewable primary energy as energy carrier	MJ	7,37E+02	MND	MND	0	2,10E-02	2,68E+00	5,41E-02	-3,55E+02
Renewable primary energy resource as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of renewable primary energy resources	MJ	7,37E+02	MND	MND	0	2,10E-02	2,68E+00	5,41E-02	-3,55E+02
Non-renewable primary energy as energy carrier	MJ	3,95E+03	MND	MND	0	1,57E+01	1,76E+01	6,96E+00	-9,00E+02
Non-renewable primary energy as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of non-renewable primary energy resources	MJ	3,95E+03	MND	MND	0	1,57E+01	1,76E+01	6,96E+00	-9,00E+02
Use of secondary materials	kg	6,11E+00	MND	MND	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of net fresh water	m <sup>3</sup>	5,70E+02	MND	MND	0	0	5,72E+00	4,84E-02	-9,51E+01
Hazardous waste disposed	kg	5,34E+00	MND	MND	0	1,38E-06	0	5,52E-07	-3,72E+00
Non-hazardous waste disposed	kg	3,02E+01	MND	MND	0	6,24E-04	0	2,56E+01	-1,73E+01
Radioactive waste disposed	kg	6,20E-02	MND	MND	0	0	0	0	-4,22E-02
Components for re-use	kg	0	MND	MND	0	0	0	0	0
Materials for recycling	kg	1,01E+01	MND	MND	0	0	3,29E+01	0	0
Materials for energy recovery	kg	0	MND	MND	0	0	2,13E+00	0	0
Exported energy	MJ	0	MND	MND	0	0	6,42E+01	0	0

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction – Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Decosntruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

## INDICATORS OF THE ENVIRONMENTAL IMPACT

### COR 3500 COATED WINDOW 1m<sup>2</sup>

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Climatic Change - total	kg CO <sub>2</sub> eq	1,36E+02	MND	MND	0	6,27E-01	5,07E-01	2,50E-01	-3,85E+01
Climatic Change - fossil	kg CO <sub>2</sub> eq	1,35E+02	MND	MND	0	6,27E-01	5,05E-01	2,50E-01	-3,85E+01
Climate change - biogenic	kg CO <sub>2</sub> eq	1,36E-01	MND	MND	0	0	4,06E-04	3,76E-05	-2,70E-02
Climate change - land use and land use change	kg CO <sub>2</sub> eq	1,71E-01	MND	MND	0	0	1,85E-03	7,32E-06	-3,17E-02
Ozone depletion	kg CFC-11 eq	8,52E-06	MND	MND	0	9,59E-10	5,90E-08	3,92E-08	-5,22E-07
Acidification	mol H <sup>+</sup> eq	9,17E-01	MND	MND	0	4,18E-03	3,96E-03	1,34E-03	-3,08E-01
Eutrophication aquatic freshwater	kg PO <sub>4</sub> <sup>3-</sup> eq	1,11E-01	MND	MND	0	6,73E-04	6,25E-04	1,25E-03	-1,93E-02
Eutrophication aquatic marine	kg N eq	1,50E-01	MND	MND	0	1,97E-03	5,65E-04	6,65E-04	-4,42E-02
Eutrophication terrestrial	mol N eq	1,54E+00	MND	MND	0	2,16E-02	5,81E-03	6,22E-03	-4,93E-01
Photochemical ozone formation	kg NMVOC eq	4,35E-01	MND	MND	0	5,49E-03	1,62E-03	1,74E-03	-1,31E-01
Abiotic resource depletion - minerals and metals	kg Sb eq	3,92E-03	MND	MND	0	2,46E-08	3,70E-07	1,24E-07	-3,11E-03
Abiotic resource depletion - fossils	MJ	1,85E+03	MND	MND	0	8,73E+00	9,46E+00	3,70E+00	-5,06E+02
Water use	m <sup>3</sup> eq	4,74E+00	MND	MND	0	6,58E-03	2,03E-01	4,62E+00	5,68E+00
Particulate matter emissions	disease inc.	1,39E-05	MND	MND	0	6,58E-08	1,64E-08	3,47E-08	-6,08E-06
Ionising radiation	kBq U235 eq	2,22E+01	MND	MND	0	2,77E-03	3,85E-01	1,85E-02	-1,24E+01
Ecotoxicity - freshwater	CTUe	1,25E+03	MND	MND	0	3,65E-02	7,16E+00	2,70E+01	-2,17E+02
Human toxicity, cancer effects	CTUh	1,55E-05	MND	MND	0	5,90E-10	3,04E-08	1,47E-08	-1,21E-06
Human toxicity, non-cancer effects	CTUh	6,74E-05	MND	MND	0	3,57E-09	1,33E-07	2,95E-07	-3,88E-05
Land use	Pt	1,06E+03	MND	MND	0	0	7,34E+00	6,66E+00	-1,45E+02

A1. Raw materials supply  
A2. Transport  
A3. Manufacturing Product  
A4. Transport  
A5. Construction - Installation process

B1. Use  
B2. Maintenance  
B3. Repair  
B4. Replacement  
B5. Refurbishment  
B6. Operational Energy use  
B7. Operational water use

C1. Decosntruction and demolition  
C2. Transport  
C3. Waste management for reuse, recovery and recycling.  
C4. Disposal

MND. Module not declared

INDICATORS OF RESOURCES USE

**COR 3500 COATED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Renewable primary energy as energy carrier	MJ	6,27E+02	MND	MND	0	2,12E-02	2,68E+00	5,59E-02	-3,67E+02
Renewable primary energy resource as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of renewable primary energy resources	MJ	6,27E+02	MND	MND	0	2,12E-02	2,68E+00	5,59E-02	-3,67E+02
Non-renewable primary energy as energy carrier	MJ	3,43E+03	MND	MND	0	1,59E+01	1,76E+01	7,00E+00	-9,26E+02
Non-renewable primary energy as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of non-renewable primary energy resources	MJ	3,43E+03	MND	MND	0	1,59E+01	1,76E+01	7,00E+00	-9,26E+02
Use of secondary materials	kg	6,07E+00	MND	MND	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of net fresh water	m <sup>3</sup>	5,30E+02	MND	MND	0	0	5,72E+00	5,70E-02	-9,52E+01
Hazardous waste disposed	kg	5,31E+00	MND	MND	0	1,40E-06	0	5,52E-07	-3,86E+00
Non-hazardous waste disposed	kg	2,90E+01	MND	MND	0	6,31E-04	0	2,57E+01	-1,79E+01
Radioactive waste disposed	kg	6,19E-02	MND	MND	0	0	0	0	-4,38E-02
Components for re-use	kg	0	MND	MND	0	0	0	0	0
Materials for recycling	kg	1,00E+01	MND	MND	0	0	3,38E+01	0	0
Materials for energy recovery	kg	0	MND	MND	0	0	2,13E+00	0	0
Exported energy	MJ	0	MND	MND	0	0	6,42E+01	0	0

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction – Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Decosntruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

## INDICATORS OF THE ENVIRONMENTAL IMPACT

### COR 60 ANODIZED WINDOW 1m<sup>2</sup>

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Climatic Change - total	kg CO <sub>2</sub> eq	1,60E+02	MND	MND	0	6,43E-01	5,04E-01	2,38E-01	-4,13E+01
Climatic Change - fossil	kg CO <sub>2</sub> eq	1,59E+02	MND	MND	0	6,43E-01	5,02E-01	2,38E-01	-4,12E+01
Climate change - biogenic	kg CO <sub>2</sub> eq	1,55E-01	MND	MND	0	0	4,03E-04	3,45E-05	-2,83E-02
Climate change - land use and land use change	kg CO <sub>2</sub> eq	1,79E-01	MND	MND	0	0	1,84E-03	6,79E-06	-3,77E-02
Ozone depletion	kg CFC-11 eq	1,28E-05	MND	MND	0	9,84E-10	5,86E-08	3,62E-08	-6,82E-07
Acidification	mol H <sup>+</sup> eq	1,16E+00	MND	MND	0	4,29E-03	3,93E-03	1,28E-03	-3,29E-01
Eutrophication aquatic freshwater	kg PO <sub>4</sub> <sup>3-</sup> eq	1,38E-01	MND	MND	0	6,90E-04	6,21E-04	1,20E-03	-2,13E-02
Eutrophication aquatic marine	kg N eq	1,71E-01	MND	MND	0	2,02E-03	5,60E-04	6,37E-04	-4,71E-02
Eutrophication terrestrial	mol N eq	1,75E+00	MND	MND	0	2,22E-02	5,76E-03	5,98E-03	-5,24E-01
Photochemical ozone formation	kg NMVOC eq	5,01E-01	MND	MND	0	5,62E-03	1,60E-03	1,67E-03	-1,39E-01
Abiotic resource depletion - minerals and metals	kg Sb eq	4,42E-03	MND	MND	0	2,53E-08	3,65E-07	1,15E-07	-3,41E-03
Abiotic resource depletion - fossils	MJ	2,33E+03	MND	MND	0	8,95E+00	9,41E+00	3,52E+00	-5,59E+02
Water use	m <sup>3</sup> eq	5,47E+00	MND	MND	0	6,75E-03	1,87E-01	4,25E+00	8,19E+00
Particulate matter emissions	disease inc.	1,56E-05	MND	MND	0	6,74E-08	1,62E-08	3,27E-08	-6,39E-06
Ionising radiation	kBq U235 eq	3,85E+01	MND	MND	0	2,85E-03	3,83E-01	1,72E-02	-1,40E+01
Ecotoxicity - freshwater	CTUe	1,89E+03	MND	MND	0	3,74E-02	7,04E+00	2,47E+01	-2,32E+02
Human toxicity, cancer effects	CTUh	1,78E-05	MND	MND	0	6,05E-10	3,02E-08	1,43E-08	-1,28E-06
Human toxicity, non-cancer effects	CTUh	8,96E-05	MND	MND	0	3,66E-09	1,32E-07	2,71E-07	-4,25E-05
Land use	Pt	1,43E+03	MND	MND	0	0	7,25E+00	6,14E+00	-1,62E+02

A1. Raw materials supply  
A2. Transport  
A3. Manufacturing Product  
A4. Transport  
A5. Construction - Installation process

B1. Use  
B2. Maintenance  
B3. Repair  
B4. Replacement  
B5. Refurbishment  
B6. Operational Energy use  
B7. Operational water use

C1. Deconstruction and demolition  
C2. Transport  
C3. Waste management for reuse, recovery and recycling.  
C4. Disposal

MND. Module not declared

INDICATORS OF RESOURCES USE

**COR 60 ANODIZED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Renewable primary energy as energy carrier	MJ	8,31E+02	MND	MND	0	2,17E-02	2,66E+00	5,26E-02	-3,97E-02
Renewable primary energy resource as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of renewable primary energy resources	MJ	8,31E+02	MND	MND	0	2,17E-02	2,66E+00	5,26E-02	-3,97E-02
Non-renewable primary energy as energy carrier	MJ	4,31E+03	MND	MND	0	1,63E+01	1,75E+01	6,65E+00	-1,02E+03
Non-renewable primary energy as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of non-renewable primary energy resources	MJ	4,31E+03	MND	MND	0	1,63E+01	1,75E+01	6,65E+00	-1,02E+03
Use of secondary materials	kg	7,01E+00	MND	MND	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of net fresh water	m <sup>3</sup>	6,02E+02	MND	MND	0	0	5,69E+00	5,26E-02	-1,12E+02
Hazardous waste disposed	kg	6,15E+00	MND	MND	0	1,43E-06	0	6,09E-07	-4,12E+00
Non-hazardous waste disposed	kg	3,47E+01	MND	MND	0	6,47E-04	0	2,37E+01	-1,91E+01
Radioactive waste disposed	kg	7,14E-02	MND	MND	0	0	0	0	-4,67E-02
Components for re-use	kg	0	MND	MND	0	0	0	0	0
Materials for recycling	kg	1,12E+01	MND	MND	0	0	3,45E+01	0	0
Materials for energy recovery	kg	0	MND	MND	0	0	2,77E+00	0	0
Exported energy	MJ	0	MND	MND	0	0	8,34E+01	0	0

A1. Raw materials supply  
A2. Transport  
A3. Manufacturing Product  
A4. Transport  
A5. Construction - Installation process

B1. Use  
B2. Maintenance  
B3. Repair  
B4. Replacement  
B5. Refurbishment  
B6. Operational Energy use  
B7. Operational water use

C1. Decosntruction and demolition  
C2. Transport  
C3. Waste management for reuse, recovery and recycling.  
C4. Disposal

MND. Module not declared

INDICATORS OF THE ENVIRONMENTAL IMPACT

**COR 60 COATED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Climatic Change - total	kg CO <sub>2</sub> eq	1,46E+02	MND	MND	0	6,50E-01	5,04E-01	2,51E-01	-4,26E+01
Climatic Change - fossil	kg CO <sub>2</sub> eq	1,45E+02	MND	MND	0	6,50E-01	5,02E-01	2,51E-01	-4,25E+01
Climate change - biogenic	kg CO <sub>2</sub> eq	1,40E-01	MND	MND	0	0	4,03E-04	3,80E-05	-2,86E-02
Climate change - land use and land use change	kg CO <sub>2</sub> eq	1,82E-01	MND	MND	0	0	1,84E-03	7,72E-06	-3,80E-02
Ozone depletion	kg CFC-11 eq	8,99E-06	MND	MND	0	9,95E-10	5,86E-08	3,65E-08	-6,82E-07
Acidification	mol H <sup>+</sup> eq	9,69E-01	MND	MND	0	4,34E-03	3,93E-03	1,29E-03	-3,37E-01
Eutrophication aquatic freshwater	kg PO <sub>4</sub> <sup>3-</sup> eq	1,15E-01	MND	MND	0	6,98E-04	6,21E-04	1,34E-03	-2,13E-02
Eutrophication aquatic marine	kg N eq	1,58E-01	MND	MND	0	2,05E-03	5,60E-04	6,55E-04	-4,82E-02
Eutrophication terrestrial	mol N eq	1,62E+00	MND	MND	0	2,24E-02	5,76E-03	6,02E-03	-5,36E-01
Photochemical ozone formation	kg NMVOC eq	4,61E-01	MND	MND	0	5,69E-03	1,60E-03	1,68E-03	-1,43E-01
Abiotic resource depletion - minerals and metals	kg Sb eq	4,31E-03	MND	MND	0	2,56E-08	3,65E-07	1,18E-07	-3,41E-03
Abiotic resource depletion - fossils	MJ	2,01E+03	MND	MND	0	9,05E+00	9,41E+00	3,54E+00	-5,75E+02
Water use	m <sup>3</sup> eq	5,45E+00	MND	MND	0	6,82E-03	1,87E-01	4,25E+00	8,05E+00
Particulate matter emissions	disease inc.	1,49E-05	MND	MND	0	6,82E-08	1,62E-08	3,30E-08	-6,58E-06
Ionising radiation	kBq U235 eq	2,46E+01	MND	MND	0	2,88E-03	3,83E-01	1,74E-02	-1,43E+01
Ecotoxicity - freshwater	CTUe	1,32E+03	MND	MND	0	3,78E-02	7,04E+00	2,93E+01	-2,32E+02
Human toxicity, cancer effects	CTUh	1,62E-05	MND	MND	0	6,12E-10	3,02E-08	1,49E-08	-1,29E-06
Human toxicity, non-cancer effects	CTUh	7,27E-05	MND	MND	0	3,70E-09	1,32E-07	3,18E-07	-4,26E-05
Land use	Pt	1,13E+03	MND	MND	0	0	7,25E+00	6,22E+00	-1,62E+02

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction - Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Deconstruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

INDICATORS OF RESOURCES USE

**COR 60 COATED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Renewable primary energy as energy carrier	MJ	7,06E+02	MND	MND	0	2,20E-02	2,66E+00	5,45E-02	-4,10E+02
Renewable primary energy resource as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of renewable primary energy resources	MJ	7,06E+02	MND	MND	0	2,20E-02	2,66E+00	5,45E-02	-4,10E+02
Non-renewable primary energy as energy carrier	MJ	3,71E+03	MND	MND	0	1,65E+01	1,75E+01	6,69E+00	-1,05E+03
Non-renewable primary energy as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of non-renewable primary energy resources	MJ	3,71E+03	MND	MND	0	1,65E+01	1,75E+01	6,69E+00	-1,05E+03
Use of secondary materials	kg	6,95E+00	MND	MND	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of net fresh water	m <sup>3</sup>	5,56E+02	MND	MND	0	0	5,69E+00	6,17E-02	-1,13E+02
Hazardous waste disposed	kg	6,11E+00	MND	MND	0	1,45E-06	0	6,09E-07	-4,27E+00
Non-hazardous waste disposed	kg	3,31E+01	MND	MND	0	6,55E-04	0	2,37E+01	-1,98E+01
Radioactive waste disposed	kg	7,13E-02	MND	MND	0	0	0	0	-4,84E-02
Components for re-use	kg	0	MND	MND	0	0	0	0	0
Materials for recycling	kg	1,11E+01	MND	MND	0	0	3,54E+01	0	0
Materials for energy recovery	kg	0	MND	MND	0	0	2,77E+00	0	0
Exported energy	MJ	0	MND	MND	0	0	8,34E+01	0	0

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction - Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Decosntruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

INDICATORS OF THE ENVIRONMENTAL IMPACT

**COR 60 HO ANODIZED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Climatic Change - total	kg CO <sub>2</sub> eq	1,28E+02	MND	MND	0	5,62E-01	5,08E-01	2,27E-01	-3,13E+01
Climatic Change - fossil	kg CO <sub>2</sub> eq	1,28E+02	MND	MND	0	5,62E-01	5,06E-01	2,27E-01	-3,13E+01
Climate change - biogenic	kg CO <sub>2</sub> eq	1,37E-01	MND	MND	0	0	4,07E-04	3,07E-05	-2,57E-02
Climate change - land use and land use change	kg CO <sub>2</sub> eq	1,53E-01	MND	MND	0	0	1,85E-03	5,59E-06	-3,25E-02
Ozone depletion	kg CFC-11 eq	1,06E-05	MND	MND	0	8,60E-10	5,91E-08	3,97E-08	-5,97E-07
Acidification	mol H <sup>+</sup> eq	9,61E-01	MND	MND	0	3,75E-03	3,96E-03	1,35E-03	-2,69E-01
Eutrophication aquatic freshwater	kg PO <sub>4</sub> <sup>3-</sup> eq	1,17E-01	MND	MND	0	6,03E-04	6,27E-04	9,24E-04	-1,98E-02
Eutrophication aquatic marine	kg N eq	1,40E-01	MND	MND	0	1,77E-03	5,66E-04	6,42E-04	-3,86E-02
Eutrophication terrestrial	mol N eq	1,48E+00	MND	MND	0	1,94E-02	5,83E-03	6,34E-03	-4,32E-01
Photochemical ozone formation	kg NMVOC eq	4,16E-01	MND	MND	0	4,92E-03	1,62E-03	1,77E-03	-1,14E-01
Abiotic resource depletion - minerals and metals	kg Sb eq	3,80E-03	MND	MND	0	2,21E-08	3,71E-07	1,22E-07	-2,95E-03
Abiotic resource depletion - fossils	MJ	1,83E+03	MND	MND	0	7,83E+00	9,48E+00	3,77E+00	-4,25E+02
Water use	m <sup>3</sup> eq	4,00E+00	MND	MND	0	5,90E-03	2,08E-01	4,73E+00	7,84E+00
Particulate matter emissions	disease inc.	1,30E-05	MND	MND	0	5,89E-08	1,65E-08	3,54E-08	-5,01E-06
Ionising radiation	kBq U235 eq	2,92E+01	MND	MND	0	2,49E-03	3,86E-01	1,86E-02	-1,10E+01
Ecotoxicity - freshwater	CTUe	1,58E+03	MND	MND	0	3,27E-02	7,19E+00	1,72E+01	-2,08E+02
Human toxicity, cancer effects	CTUh	1,60E-05	MND	MND	0	5,29E-10	3,05E-08	1,31E-08	-1,19E-06
Human toxicity, non-cancer effects	CTUh	7,56E-05	MND	MND	0	3,20E-09	1,34E-07	1,94E-07	-3,67E-05
Land use	Pt	1,15E+03	MND	MND	0	0	7,37E+00	6,70E+00	-1,51E+02

A1. Raw materials supply  
A2. Transport  
A3. Manufacturing Product  
A4. Transport  
A5. Construction - Installation process

B1. Use  
B2. Maintenance  
B3. Repair  
B4. Replacement  
B5. Refurbishment  
B6. Operational Energy use  
B7. Operational water use

C1. Decosntruction and demolition  
C2. Transport  
C3. Waste management for reuse, recovery and recycling.  
C4. Disposal

MND. Module not declared

INDICATORS OF RESOURCES USE

**COR 60 HO ANODIZED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Renewable primary energy as energy carrier	MJ	6,25E+02	MND	MND	0	1,90E-02	2,69E+00	5,29E-02	-2,94E+02
Renewable primary energy resource as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of renewable primary energy resources	MJ	6,25E+02	MND	MND	0	1,90E-02	2,69E+00	5,29E-02	-2,94E+02
Non-renewable primary energy as energy carrier	MJ	3,39E+03	MND	MND	0	1,42E+01	1,76E+01	7,12E+00	-7,81E+02
Non-renewable primary energy as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of non-renewable primary energy resources	MJ	3,39E+03	MND	MND	0	1,42E+01	1,76E+01	7,12E+00	-7,81E+02
Use of secondary materials	kg	5,19E+00	MND	MND	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of net fresh water	m <sup>3</sup>	5,39E+02	MND	MND	0	0	5,73E+00	3,85E-02	-1,01E+02
Hazardous waste disposed	kg	4,50E+00	MND	MND	0	1,25E-06	0	4,96E-07	-2,98E+00
Non-hazardous waste disposed	kg	2,52E+01	MND	MND	0	5,66E-04	0	2,63E+01	-1,38E+01
Radioactive waste disposed	kg	5,22E-02	MND	MND	0	0	0	0	-3,38E-02
Components for re-use	kg	0	MND	MND	0	0	0	0	0
Materials for recycling	kg	9,14E+00	MND	MND	0	0	2,86E+01	0	0
Materials for energy recovery	kg	0	MND	MND	0	0	2,45E+00	0	0
Exported energy	MJ	0	MND	MND	0	0	7,37E+01	0	0

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction – Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Decosntruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

INDICATORS OF THE ENVIRONMENTAL IMPACT

**COR 60 HO COATED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Climatic Change - total	kg CO <sub>2</sub> eq	1,18E+02	MND	MND	0	5,67E-01	5,08E-01	2,36E-01	-3,21E+01
Climatic Change - fossil	kg CO <sub>2</sub> eq	1,17E+02	MND	MND	0	5,67E-01	5,06E-01	2,36E-01	-3,21E+01
Climate change - biogenic	kg CO <sub>2</sub> eq	1,26E-01	MND	MND	0	0	4,07E-04	3,30E-05	-2,59E-02
Climate change - land use and land use change	kg CO <sub>2</sub> eq	1,54E-01	MND	MND	0	0	1,85E-03	6,20E-06	-3,26E-02
Ozone depletion	kg CFC-11 eq	7,76E-06	MND	MND	0	8,67E-10	5,91E-08	3,99E-08	-5,97E-07
Acidification	mol H <sup>+</sup> eq	8,23E-01	MND	MND	0	3,78E-03	3,96E-03	1,36E-03	-2,74E-01
Eutrophication aquatic freshwater	kg PO <sub>4</sub> <sup>3-</sup> eq	1,00E-01	MND	MND	0	6,09E-04	6,27E-04	1,02E-03	-1,98E-02
Eutrophication aquatic marine	kg N eq	1,30E-01	MND	MND	0	1,79E-03	5,66E-04	6,54E-04	-3,93E-02
Eutrophication terrestrial	mol N eq	1,38E+00	MND	MND	0	1,96E-02	5,83E-03	6,36E-03	-4,39E-01
Photochemical ozone formation	kg NMVOC eq	3,86E-01	MND	MND	0	4,96E-03	1,62E-03	1,78E-03	-1,16E-01
Abiotic resource depletion - minerals and metals	kg Sb eq	3,72E-03	MND	MND	0	2,23E-08	3,71E-07	1,23E-07	-2,95E-03
Abiotic resource depletion - fossils	MJ	1,59E+03	MND	MND	0	7,89E+00	9,48E+00	3,78E+00	-4,36E+02
Water use	m <sup>3</sup> eq	3,99E+00	MND	MND	0	5,95E-03	2,08E-01	4,73E+00	7,75E+00
Particulate matter emissions	disease inc.	1,25E-05	MND	MND	0	5,95E-08	1,65E-08	3,55E-08	-5,13E-06
Ionising radiation	kBq U235 eq	1,92E+01	MND	MND	0	2,51E-03	3,86E-01	1,87E-02	-1,12E+01
Ecotoxicity - freshwater	CTUe	1,17E+03	MND	MND	0	3,30E-02	7,19E+00	2,02E+01	-2,08E+02
Human toxicity, cancer effects	CTUh	1,49E-05	MND	MND	0	5,33E-10	3,05E-08	1,35E-08	-1,19E-06
Human toxicity, non-cancer effects	CTUh	6,34E-05	MND	MND	0	3,23E-09	1,34E-07	2,25E-07	-3,68E-05
Land use	Pt	9,22E+02	MND	MND	0	0	7,37E+00	6,75E+00	-1,51E+02

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction - Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Deconstruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

INDICATORS OF RESOURCES USE

**COR 60 HO COATED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Renewable primary energy as energy carrier	MJ	5,36E+02	MND	MND	0	1,92E-02	2,69E+00	5,42E-02	-3,03E-02
Renewable primary energy resource as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of renewable primary energy resources	MJ	5,36E+02	MND	MND	0	1,92E-02	2,69E+00	5,42E-02	-3,03E-02
Non-renewable primary energy as energy carrier	MJ	2,94E+03	MND	MND	0	1,44E+01	1,76E+01	7,15E+00	-8,00E+02
Non-renewable primary energy as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of non-renewable primary energy resources	MJ	2,94E+03	MND	MND	0	1,44E+01	1,76E+01	7,15E+00	-8,00E+02
Use of secondary materials	kg	5,15E+00	MND	MND	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of net fresh water	m <sup>3</sup>	5,04E+02	MND	MND	0	0	5,73E+00	4,45E-02	-1,01E+02
Hazardous waste disposed	kg	4,47E+00	MND	MND	0	1,26E-06	0	4,96E-07	-3,08E+00
Non-hazardous waste disposed	kg	2,39E+01	MND	MND	0	5,71E-04	0	2,64E+01	-1,43E+01
Radioactive waste disposed	kg	5,21E-02	MND	MND	0	0	0	0	-3,49E-02
Components for re-use	kg	0	MND	MND	0	0	0	0	0
Materials for recycling	kg	9,07E+00	MND	MND	0	0	2,92E+01	0	0
Materials for energy recovery	kg	0	MND	MND	0	0	2,45E+00	0	0
Exported energy	MJ	0	MND	MND	0	0	7,37E+01	0	0

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction – Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Decosntruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

INDICATORS OF THE ENVIRONMENTAL IMPACT

**COR 70 ANODIZED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Climatic Change - total	kg CO <sub>2</sub> eq	1,71E+02	MND	MND	0	7,06E-01	5,11E-01	3,07E-01	-4,32E+01
Climatic Change - fossil	kg CO <sub>2</sub> eq	1,71E+02	MND	MND	0	7,06E-01	5,08E-01	3,06E-01	-4,31E+01
Climate change - biogenic	kg CO <sub>2</sub> eq	1,70E-01	MND	MND	0	0	4,08E-04	4,66E-05	-3,14E-02
Climate change - land use and land use change	kg CO <sub>2</sub> eq	1,87E-01	MND	MND	0	0	1,86E-03	9,68E-06	-4,66E-02
Ozone depletion	kg CFC-11 eq	1,36E-05	MND	MND	0	1,08E-09	5,94E-08	4,35E-08	-9,78E-07
Acidification	mol H <sup>+</sup> eq	1,23E+00	MND	MND	0	4,71E-03	3,99E-03	1,57E-03	-3,59E-01
Eutrophication aquatic freshwater	kg PO <sub>4</sub> <sup>3-</sup> eq	1,51E-01	MND	MND	0	7,58E-04	6,30E-04	1,60E-03	-2,34E-02
Eutrophication aquatic marine	kg N eq	1,87E-01	MND	MND	0	2,22E-03	5,70E-04	7,95E-04	-5,12E-02
Eutrophication terrestrial	mol N eq	1,88E+00	MND	MND	0	2,44E-02	5,87E-03	7,31E-03	-5,69E-01
Photochemical ozone formation	kg NMVOC eq	5,40E-01	MND	MND	0	6,17E-03	1,63E-03	2,03E-03	-1,51E-01
Abiotic resource depletion - minerals and metals	kg Sb eq	3,82E-03	MND	MND	0	2,77E-08	3,75E-07	1,41E-07	-2,86E-03
Abiotic resource depletion - fossils	MJ	2,49E+03	MND	MND	0	9,83E+00	9,53E+00	4,27E+00	-6,17E+02
Water use	m <sup>3</sup> eq	5,23E+00	MND	MND	0	7,40E-03	2,21E-01	5,04E+00	1,35E+01
Particulate matter emissions	disease inc.	1,63E-05	MND	MND	0	7,40E-08	1,67E-08	3,98E-08	-6,71E-06
Ionising radiation	kBq U235 eq	3,83E+01	MND	MND	0	3,12E-03	3,87E-01	2,07E-02	-1,62E+01
Ecotoxicity - freshwater	CTUe	1,97E+03	MND	MND	0	4,11E-02	7,29E+00	3,66E+01	-2,03E+02
Human toxicity, cancer effects	CTUh	1,95E-05	MND	MND	0	6,64E-10	3,07E-08	1,71E-08	-1,32E-06
Human toxicity, non-cancer effects	CTUh	8,49E-05	MND	MND	0	4,02E-09	1,35E-07	3,96E-07	-3,71E-05
Land use	Pt	1,53E+03	MND	MND	0	0	7,45E+00	7,44E+00	-2,02E+02

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction - Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Deconstruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

INDICATORS OF RESOURCES USE

**COR 70 ANODIZED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Renewable primary energy as energy carrier	MJ	8,18E+02	MND	MND	0	2,39E-02	2,70E+00	6,52E-02	-4,19E+02
Renewable primary energy resource as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of renewable primary energy resources	MJ	8,18E+02	MND	MND	0	2,39E-02	2,70E+00	6,52E-02	-4,19E+02
Non-renewable primary energy as energy carrier	MJ	4,62E+03	MND	MND	0	1,79E+01	1,77E+01	8,06E+00	-1,13E+03
Non-renewable primary energy as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of non-renewable primary energy resources	MJ	4,62E+03	MND	MND	0	1,79E+01	1,77E+01	8,06E+00	-1,13E+03
Use of secondary materials	kg	6,71E+00	MND	MND	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of net fresh water	m <sup>3</sup>	6,43E+02	MND	MND	0	0	5,76E+00	7,75E-02	-1,40E+02
Hazardous waste disposed	kg	5,88E+00	MND	MND	0	1,57E-06	0	6,30E-07	-4,22E+00
Non-hazardous waste disposed	kg	3,33E+01	MND	MND	0	7,11E-04	0	2,82E+01	-1,96E+01
Radioactive waste disposed	kg	6,83E-02	MND	MND	0	0	0	0	-4,79E-02
Components for re-use	kg	0	MND	MND	0	0	0	0	0
Materials for recycling	kg	1,14E+01	MND	MND	0	0	3,66E+01	0	0
Materials for energy recovery	kg	0	MND	MND	0	0	4,01E+00	0	0
Exported energy	MJ	0	MND	MND	0	0	1,21E+02	0	0

A1. Raw materials supply  
A2. Transport  
A3. Manufacturing Product  
A4. Transport  
A5. Construction – Installation process

B1. Use  
B2. Maintenance  
B3. Repair  
B4. Replacement  
B5. Refurbishment  
B6. Operational Energy use  
B7. Operational water use

C1. Decosntruction and demolition  
C2. Transport  
C3. Waste management for reuse, recovery and recycling.  
C4. Disposal

MND. Module not declared

INDICATORS OF THE ENVIRONMENTAL IMPACT

**COR 70 COATED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Climatic Change - total	kg CO <sub>2</sub> eq	1,58E+02	MND	MND	0	7,13E-01	5,11E-01	3,20E-01	-4,45E+01
Climatic Change - fossil	kg CO <sub>2</sub> eq	1,58E+02	MND	MND	0	7,13E-01	5,08E-01	3,20E-01	-4,44E+01
Climate change - biogenic	kg CO <sub>2</sub> eq	1,55E-01	MND	MND	0	0	4,08E-04	5,01E-05	-3,17E-02
Climate change - land use and land use change	kg CO <sub>2</sub> eq	1,91E-01	MND	MND	0	0	1,86E-03	1,06E-05	-4,68E-02
Ozone depletion	kg CFC-11 eq	9,97E-06	MND	MND	0	1,09E-09	5,94E-08	4,38E-08	-9,78E-07
Acidification	mol H <sup>+</sup> eq	1,05E+00	MND	MND	0	4,76E-03	3,99E-03	1,58E-03	-3,66E-01
Eutrophication aquatic freshwater	kg PO <sub>4</sub> <sup>3-</sup> eq	1,29E-01	MND	MND	0	7,66E-04	6,30E-04	1,74E-03	-2,34E-02
Eutrophication aquatic marine	kg N eq	1,75E-01	MND	MND	0	2,25E-03	5,70E-04	8,14E-04	-5,23E-02
Eutrophication terrestrial	mol N eq	1,76E+00	MND	MND	0	2,46E-02	5,87E-03	7,35E-03	-5,80E-01
Photochemical ozone formation	kg NMVOC eq	5,03E-01	MND	MND	0	6,24E-03	1,63E-03	2,04E-03	-1,55E-01
Abiotic resource depletion - minerals and metals	kg Sb eq	3,72E-03	MND	MND	0	2,80E-08	3,75E-07	1,44E-07	-2,86E-03
Abiotic resource depletion - fossils	MJ	2,19E+03	MND	MND	0	9,93E+00	9,53E+00	4,29E+00	-6,32E+02
Water use	m <sup>3</sup> eq	5,22E+00	MND	MND	0	7,48E-03	2,21E-01	5,04E+00	1,33E+01
Particulate matter emissions	disease inc.	1,56E-05	MND	MND	0	7,48E-08	1,67E-08	4,00E-08	-6,91E-06
Ionising radiation	kBq U235 eq	2,51E+01	MND	MND	0	3,16E-03	3,87E-01	2,09E-02	-1,66E+01
Ecotoxicity - freshwater	CTUe	1,43E+03	MND	MND	0	4,15E-02	7,29E+00	4,12E+01	-2,03E+02
Human toxicity, cancer effects	CTUh	1,81E-05	MND	MND	0	6,71E-10	3,07E-08	1,77E-08	-1,32E-06
Human toxicity, non-cancer effects	CTUh	6,89E-05	MND	MND	0	4,06E-09	1,35E-07	4,44E-07	-3,72E-05
Land use	Pt	1,24E+03	MND	MND	0	0	7,45E+00	7,51E+00	-2,02E+02

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction - Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Deconstruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

INDICATORS OF RESOURCES USE

**COR 70 COATED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Renewable primary energy as energy carrier	MJ	6,99E+02	MND	MND	0	2,41E-02	2,70E+00	6,71E-02	-4,32E+02
Renewable primary energy resource as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of renewable primary energy resources	MJ	6,99E+02	MND	MND	0	2,41E-02	2,70E+00	6,71E-02	-4,32E+02
Non-renewable primary energy as energy carrier	MJ	4,07E+03	MND	MND	0	1,81E+01	1,77E+01	8,10E+00	-1,16E+03
Non-renewable primary energy as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of non-renewable primary energy resources	MJ	4,07E+03	MND	MND	0	1,81E+01	1,77E+01	8,10E+00	-1,16E+03
Use of secondary materials	kg	6,66E+00	MND	MND	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of net fresh water	m <sup>3</sup>	6,00E-02	MND	MND	0	0	5,76E+00	8,68E-02	-1,40E-02
Hazardous waste disposed	kg	5,85E+00	MND	MND	0	1,59E-06	0	6,30E-07	-4,37E+00
Non-hazardous waste disposed	kg	3,20E+01	MND	MND	0	7,18E-04	0	2,83E+01	-2,03E+01
Radioactive waste disposed	kg	6,81E-02	MND	MND	0	0	0	0	-4,96E-02
Components for re-use	kg	0	MND	MND	0	0	0	0	0
Materials for recycling	kg	1,13E+01	MND	MND	0	0	3,76E+01	0	0
Materials for energy recovery	kg	0	MND	MND	0	0	4,01E+00	0	0
Exported energy	MJ	0	MND	MND	0	0	1,21E-02	0	0

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction – Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Decosntruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

## INDICATORS OF THE ENVIRONMENTAL IMPACT

### COR 70 HO ANODIZED WINDOW 1m<sup>2</sup>

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Climatic Change - total	kg CO <sub>2</sub> eq	1,57E+02	MND	MND	0	6,95E-01	5,18E-01	3,18E-01	-3,91E+01
Climatic Change - fossil	kg CO <sub>2</sub> eq	1,56E+02	MND	MND	0	6,95E-01	5,16E-01	3,18E-01	-3,90E+01
Climate change - biogenic	kg CO <sub>2</sub> eq	1,70E-01	MND	MND	0	0	4,14E-04	4,76E-05	-3,23E-02
Climate change - land use and land use change	kg CO <sub>2</sub> eq	1,81E-01	MND	MND	0	0	1,88E-03	9,48E-06	-4,22E-02
Ozone depletion	kg CFC-11 eq	1,19E-05	MND	MND	0	1,06E-09	6,03E-08	5,01E-08	-7,99E-07
Acidification	mol H <sup>+</sup> eq	1,14E+00	MND	MND	0	4,63E-03	4,04E-03	1,72E-03	-3,38E-01
Eutrophication aquatic freshwater	kg PO <sub>4</sub> <sup>3-</sup> eq	1,46E-01	MND	MND	0	7,45E-04	6,40E-04	1,50E-03	-2,48E-02
Eutrophication aquatic marine	kg N eq	1,77E-01	MND	MND	0	2,19E-03	5,81E-04	8,50E-04	-4,84E-02
Eutrophication terrestrial	mol N eq	1,79E+00	MND	MND	0	2,40E-02	5,98E-03	8,03E-03	-5,41E-01
Photochemical ozone formation	kg NMVOC eq	5,07E-01	MND	MND	0	6,07E-03	1,66E-03	2,24E-03	-1,43E-01
Abiotic resource depletion - minerals and metals	kg Sb eq	4,65E-03	MND	MND	0	2,73E-08	3,85E-07	1,59E-07	-3,64E-03
Abiotic resource depletion - fossils	MJ	2,21E+03	MND	MND	0	9,67E+00	9,66E+00	4,76E+00	-5,38E+02
Water use	m <sup>3</sup> eq	4,18E+00	MND	MND	0	7,28E-03	2,58E-01	5,88E+00	1,08E+01
Particulate matter emissions	disease inc.	1,52E-05	MND	MND	0	7,28E-08	1,73E-08	4,47E-08	-6,23E-06
Ionising radiation	kBq U235 eq	3,10E+01	MND	MND	0	3,07E-03	3,92E-01	2,36E-02	-1,41E+01
Ecotoxicity - freshwater	CTUe	1,85E+03	MND	MND	0	4,04E-02	7,54E+00	3,37E+01	-2,51E+02
Human toxicity, cancer effects	CTUh	1,95E-05	MND	MND	0	6,53E-10	3,13E-08	1,75E-08	-1,34E-06
Human toxicity, non-cancer effects	CTUh	8,95E-05	MND	MND	0	3,96E-09	1,37E-07	3,69E-07	-4,52E-05
Land use	Pt	1,37E+03	MND	MND	0	0	7,65E+00	8,54E+00	-1,93E+02

A1. Raw materials supply  
A2. Transport  
A3. Manufacturing Product  
A4. Transport  
A5. Construction - Installation process

B1. Use  
B2. Maintenance  
B3. Repair  
B4. Replacement  
B5. Refurbishment  
B6. Operational Energy use  
B7. Operational water use

C1. Deconstruction and demolition  
C2. Transport  
C3. Waste management for reuse, recovery and recycling.  
C4. Disposal

MND. Module not declared

## INDICATORS OF RESOURCES USE

### COR 70 HO ANODIZED WINDOW 1m<sup>2</sup>

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Renewable primary energy as energy carrier	MJ	6,74E+02	MND	MND	0	2,35E-02	2,74E+00	7,07E-02	-3,69E+02
Renewable primary energy resource as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of renewable primary energy resources	MJ	6,74E+02	MND	MND	0	2,35E-02	2,74E+00	7,07E-02	-3,69E+02
Non-renewable primary energy as energy carrier	MJ	4,10E+03	MND	MND	0	1,76E+01	1,79E+01	8,99E+00	-9,89E+02
Non-renewable primary energy as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of non-renewable primary energy resources	MJ	4,10E+03	MND	MND	0	1,76E+01	1,79E+01	8,99E+00	-9,89E+02
Use of secondary materials	kg	5,39E+00	MND	MND	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of net fresh water	m <sup>3</sup>	6,40E-02	MND	MND	0	0	5,83E+00	7,27E-02	-1,31E+02
Hazardous waste disposed	kg	4,69E+00	MND	MND	0	1,55E-06	0	5,69E-07	-3,71E+00
Non-hazardous waste disposed	kg	2,61E+01	MND	MND	0	6,99E-04	0	3,29E+01	-1,72E+01
Radioactive waste disposed	kg	5,45E-02	MND	MND	0	0	0	0	-4,21E-02
Components for re-use	kg	0	MND	MND	0	0	0	0	0
Materials for recycling	kg	9,85E+00	MND	MND	0	0	3,54E+01	0	0
Materials for energy recovery	kg	0	MND	MND	0	0	3,29E+00	0	0
Exported energy	MJ	0	MND	MND	0	0	9,90E-01	0	0

A1. Raw materials supply  
A2. Transport  
A3. Manufacturing Product  
A4. Transport  
A5. Construction – Installation process

B1. Use  
B2. Maintenance  
B3. Repair  
B4. Replacement  
B5. Refurbishment  
B6. Operational Energy use  
B7. Operational water use

C1. Decosntruction and demolition  
C2. Transport  
C3. Waste management for reuse, recovery and recycling.  
C4. Disposal

MND. Module not declared

## INDICATORS OF THE ENVIRONMENTAL IMPACT

### COR 70 HO COATED WINDOW 1m<sup>2</sup>

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Climatic Change - total	kg CO <sub>2</sub> eq	1,47E+02	MND	MND	0	7,00E-01	5,18E-01	3,28E-01	-4,00E+01
Climatic Change - fossil	kg CO <sub>2</sub> eq	1,47E+02	MND	MND	0	7,00E-01	5,16E-01	3,27E-01	-3,99E+01
Climate change - biogenic	kg CO <sub>2</sub> eq	1,59E-01	MND	MND	0	0	4,14E-04	5,01E-05	-3,25E-02
Climate change - land use and land use change	kg CO <sub>2</sub> eq	1,83E-01	MND	MND	0	0	1,88E-03	1,01E-05	-4,23E-02
Ozone depletion	kg CFC-11 eq	9,21E-06	MND	MND	0	1,07E-09	6,03E-08	5,04E-08	-7,99E-07
Acidification	mol H <sup>+</sup> eq	1,01E+00	MND	MND	0	4,67E-03	4,04E-03	1,73E-03	-3,44E-01
Eutrophication aquatic freshwater	kg PO <sub>4</sub> <sup>3-</sup> eq	1,30E-01	MND	MND	0	7,51E-04	6,40E-04	1,60E-03	-2,48E-02
Eutrophication aquatic marine	kg N eq	1,68E-01	MND	MND	0	2,20E-03	5,81E-04	8,63E-04	-4,91E-02
Eutrophication terrestrial	mol N eq	1,70E+00	MND	MND	0	2,41E-02	5,98E-03	8,05E-03	-5,50E-01
Photochemical ozone formation	kg NMVOC eq	4,79E-01	MND	MND	0	6,12E-03	1,66E-03	2,25E-03	-1,45E-01
Abiotic resource depletion - minerals and metals	kg Sb eq	4,58E-03	MND	MND	0	2,75E-08	3,85E-07	1,61E-07	-3,64E-03
Abiotic resource depletion - fossils	MJ	1,98E+03	MND	MND	0	9,74E+00	9,66E+00	4,77E+00	-5,50E+02
Water use	m <sup>3</sup> eq	4,17E+00	MND	MND	0	7,34E-03	2,58E-01	5,88E+00	1,07E+01
Particulate matter emissions	disease inc.	1,47E-05	MND	MND	0	7,34E-08	1,73E-08	4,49E-08	-6,37E-06
Ionising radiation	kBq U235 eq	2,14E+01	MND	MND	0	3,10E-03	3,92E-01	2,37E-02	-1,43E+01
Ecotoxicity - freshwater	CTUe	1,46E+03	MND	MND	0	4,07E-02	7,54E+00	3,70E+01	-2,51E+02
Human toxicity, cancer effects	CTUh	1,84E-05	MND	MND	0	6,58E-10	3,13E-08	1,79E-08	-1,34E-06
Human toxicity, non-cancer effects	CTUh	7,79E-05	MND	MND	0	3,99E-09	1,37E-07	4,03E-07	-4,53E-05
Land use	Pt	1,16E+03	MND	MND	0	0	7,65E+00	8,59E+00	-1,93E+02

A1. Raw materials supply  
A2. Transport  
A3. Manufacturing Product  
A4. Transport  
A5. Construction - Installation process

B1. Use  
B2. Maintenance  
B3. Repair  
B4. Replacement  
B5. Refurbishment  
B6. Operational Energy use  
B7. Operational water use

C1. Deconstruction and demolition  
C2. Transport  
C3. Waste management for reuse, recovery and recycling.  
C4. Disposal

MND. Module not declared

INDICATORS OF RESOURCES USE

**COR 70 HO COATED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Renewable primary energy as energy carrier	MJ	5,87E+02	MND	MND	0	2,37E-02	2,74E+00	7,21E-02	-3,78E+02
Renewable primary energy resource as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of renewable primary energy resources	MJ	5,87E+02	MND	MND	0	2,37E-02	2,74E+00	7,21E-02	-3,78E+02
Non-renewable primary energy as energy carrier	MJ	3,68E+03	MND	MND	0	1,77E+01	1,79E+01	9,02E+00	-1,01E+03
Non-renewable primary energy as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of non-renewable primary energy resources	MJ	3,68E+03	MND	MND	0	1,77E+01	1,79E+01	9,02E+00	-1,01E+03
Use of secondary materials	kg	5,35E+00	MND	MND	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of net fresh water	m <sup>3</sup>	6,08E-02	MND	MND	0	0	5,83E+00	7,91E-02	-1,31E-02
Hazardous waste disposed	kg	4,66E+00	MND	MND	0	1,56E-06	0	5,69E-07	-3,82E+00
Non-hazardous waste disposed	kg	2,50E+01	MND	MND	0	7,04E-04	0	3,29E+01	-1,77E+01
Radioactive waste disposed	kg	5,44E-02	MND	MND	0	0	0	0	-4,33E-02
Components for re-use	kg	0	MND	MND	0	0	0	0	0
Materials for recycling	kg	9,78E+00	MND	MND	0	0	3,61E+01	0	0
Materials for energy recovery	kg	0	MND	MND	0	0	3,29E+00	0	0
Exported energy	MJ	0	MND	MND	0	0	9,90E-01	0	0

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction – Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Decosntruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

## INDICATORS OF THE ENVIRONMENTAL IMPACT

### COR 80 ANODIZED WINDOW 1m<sup>2</sup>

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Climatic Change - total	kg CO <sub>2</sub> eq	1,99E+02	MND	MND	0	8,93E-01	5,32E-01	4,38E-01	-4,71E+01
Climatic Change - fossil	kg CO <sub>2</sub> eq	1,99E+02	MND	MND	0	8,93E-01	5,30E-01	4,37E-01	-4,70E+01
Climate change - biogenic	kg CO <sub>2</sub> eq	2,07E-01	MND	MND	0	0	4,24E-04	6,78E-05	-3,94E-02
Climate change - land use and land use change	kg CO <sub>2</sub> eq	2,03E-01	MND	MND	0	0	1,93E-03	1,43E-05	-5,58E-02
Ozone depletion	kg CFC-11 eq	1,58E-05	MND	MND	0	1,37E-09	6,21E-08	6,54E-08	-1,19E-06
Acidification	mol H <sup>+</sup> eq	1,43E+00	MND	MND	0	5,96E-03	4,16E-03	2,27E-03	-4,17E-01
Eutrophication aquatic freshwater	kg PO <sub>4</sub> <sup>3-</sup> eq	1,82E-01	MND	MND	0	9,58E-04	6,60E-04	2,16E-03	-2,90E-02
Eutrophication aquatic marine	kg N eq	2,28E-01	MND	MND	0	2,81E-03	6,02E-04	1,14E-03	-5,95E-02
Eutrophication terrestrial	mol N eq	2,25E+00	MND	MND	0	3,08E-02	6,20E-03	1,06E-02	-6,64E-01
Photochemical ozone formation	kg NMVOC eq	6,41E-01	MND	MND	0	7,81E-03	1,73E-03	2,96E-03	-1,75E-01
Abiotic resource depletion - minerals and metals	kg Sb eq	4,33E-03	MND	MND	0	3,51E-08	4,06E-07	2,10E-07	-3,23E-03
Abiotic resource depletion - fossils	MJ	2,87E+03	MND	MND	0	1,24E+01	9,92E+00	6,25E+00	-6,78E+02
Water use	m <sup>3</sup> eq	5,14E+00	MND	MND	0	9,36E-03	3,32E-01	7,55E+00	1,72E+01
Particulate matter emissions	disease inc.	1,89E-05	MND	MND	0	9,36E-08	1,85E-08	5,88E-08	-7,55E-06
Ionising radiation	kBq U235 eq	4,00E+01	MND	MND	0	3,95E-03	4,02E-01	3,09E-02	-1,84E+01
Ecotoxicity - freshwater	CTUe	2,24E+03	MND	MND	0	5,19E-02	8,05E+00	5,13E+01	-2,29E+02
Human toxicity, cancer effects	CTUh	2,26E-05	MND	MND	0	8,40E-10	3,24E-08	2,32E-08	-1,29E-06
Human toxicity, non-cancer effects	CTUh	9,54E-05	MND	MND	0	5,09E-09	1,42E-07	5,57E-07	-4,19E-05
Land use	Pt	1,78E+03	MND	MND	0	0	8,06E+00	1,12E+01	-2,56E+02

A1. Raw materials supply  
A2. Transport  
A3. Manufacturing Product  
A4. Transport  
A5. Construction - Installation process

B1. Use  
B2. Maintenance  
B3. Repair  
B4. Replacement  
B5. Refurbishment  
B6. Operational Energy use  
B7. Operational water use

C1. Deconstruction and demolition  
C2. Transport  
C3. Waste management for reuse, recovery and recycling.  
C4. Disposal

MND. Module not declared

INDICATORS OF RESOURCES USE

**COR 80 ANODIZED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Renewable primary energy as energy carrier	MJ	8,36E+02	MND	MND	0	3,02E-02	2,81E+00	9,55E-02	-4,52E+02
Renewable primary energy resource as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of renewable primary energy resources	MJ	8,36E+02	MND	MND	0	3,02E-02	2,81E+00	9,55E-02	-4,52E+02
Non-renewable primary energy as energy carrier	MJ	5,33E+03	MND	MND	0	2,26E+01	1,84E+01	1,18E+01	-1,25E+03
Non-renewable primary energy as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of non-renewable primary energy resources	MJ	5,33E+03	MND	MND	0	2,26E+01	1,84E+01	1,18E+01	-1,25E+03
Use of secondary materials	kg	6,50E+00	MND	MND	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of net fresh water	m <sup>3</sup>	7,13E-02	MND	MND	0	0	5,98E+00	1,12E-01	-1,71E-02
Hazardous waste disposed	kg	5,77E+00	MND	MND	0	1,99E-06	0	6,92E-07	-4,44E+00
Non-hazardous waste disposed	kg	3,27E+01	MND	MND	0	8,99E-04	0	4,27E+01	-2,06E+01
Radioactive waste disposed	kg	6,70E-02	MND	MND	0	0	0	0	-5,04E-02
Components for re-use	kg	0	MND	MND	0	0	0	0	0
Materials for recycling	kg	1,29E+01	MND	MND	0	0	4,39E+01	0	0
Materials for energy recovery	kg	0	MND	MND	0	0	4,94E+00	0	0
Exported energy	MJ	0	MND	MND	0	0	1,49E-02	0	0

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction – Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Decosntruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

## INDICATORS OF THE ENVIRONMENTAL IMPACT

### COR 80 COATED WINDOW 1m<sup>2</sup>

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Climatic Change - total	kg CO <sub>2</sub> eq	1,87E+02	MND	MND	0	9,00E-01	5,32E-01	4,50E-01	-4,83E+01
Climatic Change - fossil	kg CO <sub>2</sub> eq	1,86E+02	MND	MND	0	9,00E-01	5,30E-01	4,50E-01	-4,82E+01
Climate change - biogenic	kg CO <sub>2</sub> eq	1,93E-01	MND	MND	0	0	4,24E-04	7,12E-05	-3,97E-02
Climate change - land use and land use change	kg CO <sub>2</sub> eq	2,08E-01	MND	MND	0	0	1,93E-03	1,52E-05	-5,60E-02
Ozone depletion	kg CFC-11 eq	1,23E-05	MND	MND	0	1,38E-09	6,21E-08	6,57E-08	-1,19E-06
Acidification	mol H <sup>+</sup> eq	1,26E+00	MND	MND	0	6,00E-03	4,16E-03	2,29E-03	-4,24E-01
Eutrophication aquatic freshwater	kg PO <sub>4</sub> <sup>3-</sup> eq	1,61E-01	MND	MND	0	9,66E-04	6,60E-04	2,29E-03	-2,90E-02
Eutrophication aquatic marine	kg N eq	2,16E-01	MND	MND	0	2,83E-03	6,02E-04	1,16E-03	-6,06E-02
Eutrophication terrestrial	mol N eq	2,13E+00	MND	MND	0	3,11E-02	6,20E-03	1,06E-02	-6,75E-01
Photochemical ozone formation	kg NMVOC eq	6,05E-01	MND	MND	0	7,87E-03	1,73E-03	2,97E-03	-1,78E-01
Abiotic resource depletion - minerals and metals	kg Sb eq	4,24E-03	MND	MND	0	3,54E-08	4,06E-07	2,13E-07	-3,23E-03
Abiotic resource depletion - fossils	MJ	2,57E+03	MND	MND	0	1,25E+01	9,92E+00	6,27E+00	-6,93E+02
Water use	m <sup>3</sup> eq	5,13E+00	MND	MND	0	9,44E-03	3,32E-01	7,55E+00	1,71E+01
Particulate matter emissions	disease inc.	1,83E-05	MND	MND	0	9,44E-08	1,85E-08	5,90E-08	-7,73E-06
Ionising radiation	kBq U235 eq	2,70E+01	MND	MND	0	3,98E-03	4,02E-01	3,11E-02	-1,88E+01
Ecotoxicity - freshwater	CTUe	1,72E+03	MND	MND	0	5,24E-02	8,05E+00	5,59E+01	-2,30E+02
Human toxicity, cancer effects	CTUh	2,12E-05	MND	MND	0	8,47E-10	3,24E-08	2,38E-08	-1,30E-06
Human toxicity, non-cancer effects	CTUh	7,97E-05	MND	MND	0	5,13E-09	1,42E-07	6,04E-07	-4,20E-05
Land use	Pt	1,50E+03	MND	MND	0	0	8,06E+00	1,13E+01	-2,57E+02

A1. Raw materials supply  
A2. Transport  
A3. Manufacturing Product  
A4. Transport  
A5. Construction - Installation process

B1. Use  
B2. Maintenance  
B3. Repair  
B4. Replacement  
B5. Refurbishment  
B6. Operational Energy use  
B7. Operational water use

C1. Deconstruction and demolition  
C2. Transport  
C3. Waste management for reuse, recovery and recycling.  
C4. Disposal

MND. Module not declared

INDICATORS OF RESOURCES USE

**COR 80 COATED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Renewable primary energy as energy carrier	MJ	7,20E+02	MND	MND	0	3,04E-02	2,81E+00	9,74E-02	-4,64E+02
Renewable primary energy resource as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of renewable primary energy resources	MJ	7,20E+02	MND	MND	0	3,04E-02	2,81E+00	9,74E-02	-4,64E+02
Non-renewable primary energy as energy carrier	MJ	4,78E+03	MND	MND	0	2,28E+01	1,84E+01	1,19E+01	-1,27E+03
Non-renewable primary energy as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of non-renewable primary energy resources	MJ	4,78E+03	MND	MND	0	2,28E+01	1,84E+01	1,19E+01	-1,27E+03
Use of secondary materials	kg	6,45E+00	MND	MND	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of net fresh water	m <sup>3</sup>	6,70E-02	MND	MND	0	0	5,98E+00	1,21E-01	-1,71E-02
Hazardous waste disposed	kg	5,74E+00	MND	MND	0	2,01E-06	0	6,92E-07	-4,59E+00
Non-hazardous waste disposed	kg	3,14E+01	MND	MND	0	9,06E-04	0	4,28E+01	-2,13E+01
Radioactive waste disposed	kg	6,69E-02	MND	MND	0	0	0	0	-5,21E-02
Components for re-use	kg	0	MND	MND	0	0	0	0	0
Materials for recycling	kg	1,28E+01	MND	MND	0	0	4,49E+01	0	0
Materials for energy recovery	kg	0	MND	MND	0	0	4,94E+00	0	0
Exported energy	MJ	0	MND	MND	0	0	1,49E-02	0	0

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction – Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Decosntruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

INDICATORS OF THE ENVIRONMENTAL IMPACT

**COR 80 HO ANODIZED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Climatic Change - total	kg CO <sub>2</sub> eq	1,77E+02	MND	MND	0	8,34E-01	5,34E-01	4,19E-01	-4,26E+01
Climatic Change - fossil	kg CO <sub>2</sub> eq	1,77E+02	MND	MND	0	8,34E-01	5,31E-01	4,19E-01	-4,25E+01
Climate change - biogenic	kg CO <sub>2</sub> eq	1,95E-01	MND	MND	0	0	4,25E-04	6,41E-05	-3,83E-02
Climate change - land use and land use change	kg CO <sub>2</sub> eq	1,90E-01	MND	MND	0	0	1,93E-03	1,29E-05	-5,06E-02
Ozone depletion	kg CFC-11 eq	1,35E-05	MND	MND	0	1,28E-09	6,22E-08	6,57E-08	-1,02E-06
Acidification	mol H <sup>+</sup> eq	1,29E+00	MND	MND	0	5,56E-03	4,17E-03	2,24E-03	-3,86E-01
Eutrophication aquatic freshwater	kg PO <sub>4</sub> <sup>3-</sup> eq	1,66E-01	MND	MND	0	8,95E-04	6,62E-04	1,97E-03	-2,89E-02
Eutrophication aquatic marine	kg N eq	2,06E-01	MND	MND	0	2,63E-03	6,04E-04	1,11E-03	-5,52E-02
Eutrophication terrestrial	mol N eq	2,05E+00	MND	MND	0	2,88E-02	6,22E-03	1,04E-02	-6,18E-01
Photochemical ozone formation	kg NMVOC eq	5,80E-01	MND	MND	0	7,30E-03	1,73E-03	2,92E-03	-1,62E-01
Abiotic resource depletion - minerals and metals	kg Sb eq	4,73E-03	MND	MND	0	3,28E-08	4,08E-07	2,09E-07	-3,65E-03
Abiotic resource depletion - fossils	MJ	2,50E+03	MND	MND	0	1,16E+01	9,94E+00	6,20E+00	-6,00E+02
Water use	m <sup>3</sup> eq	4,19E+00	MND	MND	0	8,75E-03	3,38E-01	7,69E+00	1,47E+01
Particulate matter emissions	disease inc.	1,71E-05	MND	MND	0	8,75E-08	1,86E-08	5,85E-08	-6,92E-06
Ionising radiation	kBq U235 eq	3,26E+01	MND	MND	0	3,69E-03	4,03E-01	3,09E-02	-1,62E+01
Ecotoxicity - freshwater	CTUe	2,01E+03	MND	MND	0	4,85E-02	8,09E+00	4,64E+01	-2,60E+02
Human toxicity, cancer effects	CTUh	2,15E-05	MND	MND	0	7,85E-10	3,25E-08	2,22E-08	-1,45E-06
Human toxicity, non-cancer effects	CTUh	9,35E-05	MND	MND	0	4,75E-09	1,42E-07	5,06E-07	-4,41E-05
Land use	Pt	1,55E+03	MND	MND	0	0	8,10E+00	1,12E+01	-2,40E+02

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction - Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Deconstruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

INDICATORS OF RESOURCES USE

**COR 80 HO ANODIZED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Renewable primary energy as energy carrier	MJ	6,95E+02	MND	MND	0	2,82E-02	2,82E+00	9,25E-02	-4,01E+02
Renewable primary energy resource as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of renewable primary energy resources	MJ	6,95E+02	MND	MND	0	2,82E-02	2,82E+00	9,25E-02	-4,01E+02
Non-renewable primary energy as energy carrier	MJ	4,65E+03	MND	MND	0	2,11E+01	1,85E+01	1,17E+01	-1,10E+03
Non-renewable primary energy as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of non-renewable primary energy resources	MJ	4,65E+03	MND	MND	0	2,11E+01	1,85E+01	1,17E+01	-1,10E+03
Use of secondary materials	kg	5,39E+00	MND	MND	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of net fresh water	m <sup>3</sup>	6,91E-02	MND	MND	0	0	5,99E+00	9,98E-02	-1,59E+02
Hazardous waste disposed	kg	4,69E+00	MND	MND	0	1,86E-06	0	6,24E-07	-3,93E+00
Non-hazardous waste disposed	kg	2,61E+01	MND	MND	0	8,40E-04	0	4,31E+01	-1,83E+01
Radioactive waste disposed	kg	5,45E-02	MND	MND	0	0	0	0	-4,46E-02
Components for re-use	kg	0	MND	MND	0	0	0	0	0
Materials for recycling	kg	1,10E+01	MND	MND	0	0	4,11E+01	0	0
Materials for energy recovery	kg	0	MND	MND	0	0	4,25E+00	0	0
Exported energy	MJ	0	MND	MND	0	0	1,28E-02	0	0

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction – Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Decosntruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

INDICATORS OF THE ENVIRONMENTAL IMPACT

**COR 80 HO COATED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Climatic Change - total	kg CO <sub>2</sub> eq	1,68E+02	MND	MND	0	8,39E-01	5,34E-01	4,29E-01	-4,35E+01
Climatic Change - fossil	kg CO <sub>2</sub> eq	1,67E+02	MND	MND	0	8,39E-01	5,31E-01	4,29E-01	-4,34E+01
Climate change - biogenic	kg CO <sub>2</sub> eq	1,84E-01	MND	MND	0	0	4,25E-04	6,66E-05	-3,85E-02
Climate change - land use and land use change	kg CO <sub>2</sub> eq	1,92E-01	MND	MND	0	0	1,93E-03	1,36E-05	-5,08E-02
Ozone depletion	kg CFC-11 eq	1,09E-05	MND	MND	0	1,28E-09	6,22E-08	6,59E-08	-1,02E-06
Acidification	mol H <sup>+</sup> eq	1,16E+00	MND	MND	0	5,60E-03	4,17E-03	2,25E-03	-3,91E-01
Eutrophication aquatic freshwater	kg PO <sub>4</sub> <sup>3-</sup> eq	1,51E-01	MND	MND	0	9,01E-04	6,62E-04	2,07E-03	-2,89E-02
Eutrophication aquatic marine	kg N eq	1,97E-01	MND	MND	0	2,64E-03	6,04E-04	1,12E-03	-5,59E-02
Eutrophication terrestrial	mol N eq	1,96E+00	MND	MND	0	2,90E-02	6,22E-03	1,05E-02	-6,27E-01
Photochemical ozone formation	kg NMVOC eq	5,52E-01	MND	MND	0	7,34E-03	1,73E-03	2,93E-03	-1,65E-01
Abiotic resource depletion - minerals and metals	kg Sb eq	4,65E-03	MND	MND	0	3,30E-08	4,08E-07	2,11E-07	-3,65E-03
Abiotic resource depletion - fossils	MJ	2,28E+03	MND	MND	0	1,17E+01	9,94E+00	6,21E+00	-6,11E+02
Water use	m <sup>3</sup> eq	4,18E+00	MND	MND	0	8,80E-03	3,38E-01	7,69E+00	1,46E+01
Particulate matter emissions	disease inc.	1,66E-05	MND	MND	0	8,80E-08	1,86E-08	5,86E-08	-7,06E-06
Ionising radiation	kBq U235 eq	2,29E+01	MND	MND	0	3,71E-03	4,03E-01	3,10E-02	-1,65E+01
Ecotoxicity - freshwater	CTUe	1,62E+03	MND	MND	0	4,88E-02	8,09E+00	4,96E+01	-2,60E+02
Human toxicity, cancer effects	CTUh	2,04E-05	MND	MND	0	7,90E-10	3,25E-08	2,26E-08	-1,45E-06
Human toxicity, non-cancer effects	CTUh	8,18E-05	MND	MND	0	4,78E-09	1,42E-07	5,39E-07	-4,61E-05
Land use	Pt	1,34E+03	MND	MND	0	0	8,10E+00	1,13E+01	-2,40E+02

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction - Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Deconstruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

INDICATORS OF RESOURCES USE

**COR 80 HO COATED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Renewable primary energy as energy carrier	MJ	6,09E+02	MND	MND	0	2,84E-02	2,82E+00	9,39E-02	-4,10E+02
Renewable primary energy resource as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of renewable primary energy resources	MJ	6,09E+02	MND	MND	0	2,84E-02	2,82E+00	9,39E-02	-4,10E+02
Non-renewable primary energy as energy carrier	MJ	4,23E+03	MND	MND	0	2,13E+01	1,85E+01	1,17E+01	-1,12E+03
Non-renewable primary energy as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of non-renewable primary energy resources	MJ	4,23E+03	MND	MND	0	2,13E+01	1,85E+01	1,17E+01	-1,12E+03
Use of secondary materials	kg	5,35E+00	MND	MND	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of net fresh water	m <sup>3</sup>	6,59E-02	MND	MND	0	0	5,99E+00	1,06E-01	-1,59E-02
Hazardous waste disposed	kg	4,66E+00	MND	MND	0	1,87E-06	0	6,24E-07	-4,04E+00
Non-hazardous waste disposed	kg	2,50E+01	MND	MND	0	8,45E-04	0	4,31E+01	-1,88E+01
Radioactive waste disposed	kg	5,44E-02	MND	MND	0	0	0	0	-4,58E-02
Components for re-use	kg	0	MND	MND	0	0	0	0	0
Materials for recycling	kg	1,10E+01	MND	MND	0	0	4,18E+01	0	0
Materials for energy recovery	kg	0	MND	MND	0	0	4,25E+00	0	0
Exported energy	MJ	0	MND	MND	0	0	1,28E-02	0	0

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction – Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Decosntruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

INDICATORS OF THE ENVIRONMENTAL IMPACT

**COR 4200 ANODIZED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Climatic Change - total	kg CO <sub>2</sub> eq	1,17E+02	MND	MND	0	5,41E-01	5,04E-01	2,13E-01	-2,84E+01
Climatic Change - fossil	kg CO <sub>2</sub> eq	1,16E+02	MND	MND	0	5,41E-01	5,02E-01	2,13E-01	-2,83E+01
Climate change - biogenic	kg CO <sub>2</sub> eq	1,07E-01	MND	MND	0	0	4,03E-04	2,93E-05	-2,28E-02
Climate change - land use and land use change	kg CO <sub>2</sub> eq	1,05E-01	MND	MND	0	0	1,84E-03	5,40E-06	-3,00E-02
Ozone depletion	kg CFC-11 eq	9,32E-06	MND	MND	0	8,28E-10	5,86E-08	3,57E-08	-5,84E-07
Acidification	mol H <sup>+</sup> eq	8,69E-01	MND	MND	0	3,61E-03	3,93E-03	1,23E-03	-2,44E-01
Eutrophication aquatic freshwater	kg PO <sub>4</sub> <sup>3-</sup> eq	9,30E-02	MND	MND	0	5,81E-04	6,21E-04	9,19E-04	-1,67E-02
Eutrophication aquatic marine	kg N eq	1,28E-01	MND	MND	0	1,70E-03	5,60E-04	5,92E-04	-3,48E-02
Eutrophication terrestrial	mol N eq	1,35E+00	MND	MND	0	1,87E-02	5,76E-03	5,77E-03	-3,89E-01
Photochemical ozone formation	kg NMVOC eq	3,81E-01	MND	MND	0	4,73E-03	1,60E-03	1,61E-03	-1,03E-01
Abiotic resource depletion - minerals and metals	kg Sb eq	2,85E-03	MND	MND	0	2,13E-08	3,65E-07	1,10E-07	-2,26E-03
Abiotic resource depletion - fossils	MJ	1,74E+03	MND	MND	0	7,53E+00	9,41E+00	3,41E+00	-3,93E+02
Water use	m <sup>3</sup> eq	4,33E+00	MND	MND	0	5,67E-03	1,87E-01	4,25E+00	7,98E+00
Particulate matter emissions	disease inc.	1,22E-05	MND	MND	0	5,67E-08	1,62E-08	3,20E-08	-4,53E-06
Ionising radiation	kBq U235 eq	2,93E+01	MND	MND	0	2,39E-03	3,83E-01	1,67E-02	-1,03E+01
Ecotoxicity - freshwater	CTUe	1,27E+03	MND	MND	0	3,15E-02	7,05E+00	1,78E+01	-1,53E+02
Human toxicity, cancer effects	CTUh	1,02E-05	MND	MND	0	5,09E-10	3,02E-08	1,23E-08	-7,20E-07
Human toxicity, non-cancer effects	CTUh	6,12E-05	MND	MND	0	3,08E-09	1,32E-07	1,99E-07	-2,84E-05
Land use	Pt	1,03E+03	MND	MND	0	0	7,25E+00	6,03E+00	-1,38E+02

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction - Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Deconstruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

INDICATORS OF RESOURCES USE

**COR 4200 ANODIZED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Renewable primary energy as energy carrier	MJ	6,28E+02	MND	MND	0	1,83E-02	2,66E+00	4,84E-02	-2,70E+02
Renewable primary energy resource as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of renewable primary energy resources	MJ	6,28E+02	MND	MND	0	1,83E-02	2,66E+00	4,84E-02	-2,70E+02
Non-renewable primary energy as energy carrier	MJ	3,22E+03	MND	MND	0	1,37E+01	1,75E+01	6,45E+00	-7,21E+02
Non-renewable primary energy as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of non-renewable primary energy resources	MJ	3,22E+03	MND	MND	0	1,37E+01	1,75E+01	6,45E+00	-7,21E+02
Use of secondary materials	kg	5,43E+00	MND	MND	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of net fresh water	m <sup>3</sup>	3,24E+02	MND	MND	0	0	5,69E+00	3,89E-02	-9,13E+01
Hazardous waste disposed	kg	4,87E+00	MND	MND	0	1,21E-06	0	4,73E-07	-2,72E+00
Non-hazardous waste disposed	kg	2,71E+01	MND	MND	0	5,45E-04	0	2,36E+01	-1,27E+01
Radioactive waste disposed	kg	5,66E-02	MND	MND	0	0	0	0	-3,09E-02
Components for re-use	kg	0	MND	MND	0	0	0	0	0
Materials for recycling	kg	9,72E+00	MND	MND	0	0	2,71E+01	0	0
Materials for energy recovery	kg	0	MND	MND	0	0	2,43E+00	0	0
Exported energy	MJ	0	MND	MND	0	0	7,31E-01	0	0

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction – Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Decosntruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

INDICATORS OF THE ENVIRONMENTAL IMPACT

**COR 4200 COATED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Climatic Change - total	kg CO <sub>2</sub> eq	1,06E+02	MND	MND	0	5,47E-01	5,04E-01	2,23E-01	-2,93E+01
Climatic Change - fossil	kg CO <sub>2</sub> eq	1,05E+02	MND	MND	0	5,47E-01	5,02E-01	2,22E-01	-2,92E+01
Climate change - biogenic	kg CO <sub>2</sub> eq	9,49E-02	MND	MND	0	0	4,03E-04	3,19E-05	-2,30E-02
Climate change - land use and land use change	kg CO <sub>2</sub> eq	1,07E-01	MND	MND	0	0	1,84E-03	6,08E-06	-3,02E-02
Ozone depletion	kg CFC-11 eq	6,35E-06	MND	MND	0	8,36E-10	5,86E-08	3,59E-08	-5,84E-07
Acidification	mol H <sup>+</sup> eq	7,22E-01	MND	MND	0	3,65E-03	3,93E-03	1,24E-03	-2,49E-01
Eutrophication aquatic freshwater	kg PO <sub>4</sub> <sup>3-</sup> eq	7,52E-02	MND	MND	0	5,87E-04	6,21E-04	1,02E-03	-1,67E-02
Eutrophication aquatic marine	kg N eq	1,17E-01	MND	MND	0	1,72E-03	5,60E-04	6,05E-04	-3,56E-02
Eutrophication terrestrial	mol N eq	1,24E+00	MND	MND	0	1,89E-02	5,76E-03	5,80E-03	-3,98E-01
Photochemical ozone formation	kg NMVOC eq	3,50E-01	MND	MND	0	4,78E-03	1,60E-03	1,62E-03	-1,05E-01
Abiotic resource depletion - minerals and metals	kg Sb eq	2,77E-03	MND	MND	0	2,15E-08	3,65E-07	1,12E-07	-2,26E-03
Abiotic resource depletion - fossils	MJ	1,49E+03	MND	MND	0	7,61E+00	9,41E+00	3,43E+00	-4,05E+02
Water use	m <sup>3</sup> eq	4,32E+00	MND	MND	0	5,73E-03	1,87E-01	4,25E+00	7,88E+00
Particulate matter emissions	disease inc.	1,17E-05	MND	MND	0	5,73E-08	1,62E-08	3,22E-08	-4,67E-06
Ionising radiation	kBq U235 eq	1,85E+01	MND	MND	0	2,42E-03	3,83E-01	1,69E-02	-1,05E+01
Ecotoxicity - freshwater	CTUe	8,27E+02	MND	MND	0	3,18E-02	7,05E+00	2,12E+01	-1,53E+02
Human toxicity, cancer effects	CTUh	8,94E-06	MND	MND	0	5,14E-10	3,02E-08	1,27E-08	-7,23E-07
Human toxicity, non-cancer effects	CTUh	4,81E-05	MND	MND	0	3,11E-09	1,32E-07	2,34E-07	-2,85E-05
Land use	Pt	7,89E+02	MND	MND	0	0	7,25E+00	6,09E+00	-1,38E+02

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction - Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Deconstruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

INDICATORS OF RESOURCES USE

**COR 4200 COATED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Renewable primary energy as energy carrier	MJ	5,32E+02	MND	MND	0	1,85E-02	2,66E+00	4,99E-02	-2,80E+02
Renewable primary energy resource as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of renewable primary energy resources	MJ	5,32E+02	MND	MND	0	1,85E-02	2,66E+00	4,99E-02	-2,80E+02
Non-renewable primary energy as energy carrier	MJ	2,75E+03	MND	MND	0	1,38E+01	1,75E+01	6,49E+00	-7,42E+02
Non-renewable primary energy as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of non-renewable primary energy resources	MJ	2,75E+03	MND	MND	0	1,38E+01	1,75E+01	6,49E+00	-7,42E+02
Use of secondary materials	kg	5,38E+00	MND	MND	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of net fresh water	m <sup>3</sup>	2,87E-02	MND	MND	0	0	5,69E+00	4,56E-02	-9,14E+01
Hazardous waste disposed	kg	4,84E+00	MND	MND	0	1,22E-06	0	4,73E-07	-2,84E+00
Non-hazardous waste disposed	kg	2,58E+01	MND	MND	0	5,50E-04	0	2,36E+01	-1,32E+01
Radioactive waste disposed	kg	5,65E-02	MND	MND	0	0	0	0	-3,22E-02
Components for re-use	kg	0	MND	MND	0	0	0	0	0
Materials for recycling	kg	9,64E+00	MND	MND	0	0	2,78E+01	0	0
Materials for energy recovery	kg	0	MND	MND	0	0	2,43E+00	0	0
Exported energy	MJ	0	MND	MND	0	0	7,31E-01	0	0

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction – Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Decosntruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

INDICATORS OF THE ENVIRONMENTAL IMPACT

**COR 4900 ANODIZED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Climatic Change - total	kg CO <sub>2</sub> eq	1,33E+02	MND	MND	0	6,65E-01	5,19E-01	3,35E-01	-2,92E+01
Climatic Change - fossil	kg CO <sub>2</sub> eq	1,33E+02	MND	MND	0	6,65E-01	5,17E-01	3,35E-01	-2,91E+01
Climate change - biogenic	kg CO <sub>2</sub> eq	1,26E-01	MND	MND	0	0	4,15E-04	4,93E-05	-2,64E-02
Climate change - land use and land use change	kg CO <sub>2</sub> eq	1,05E-01	MND	MND	0	0	1,89E-03	1,00E-05	-4,27E-02
Ozone depletion	kg CFC-11 eq	1,13E-05	MND	MND	0	1,02E-09	6,05E-08	5,16E-08	-1,11E-06
Acidification	mol H <sup>+</sup> eq	9,75E-01	MND	MND	0	4,44E-03	4,05E-03	1,82E-03	-2,78E-01
Eutrophication aquatic freshwater	kg PO <sub>4</sub> <sup>3-</sup> eq	1,09E-01	MND	MND	0	7,14E-04	6,42E-04	1,51E-03	-1,78E-02
Eutrophication aquatic marine	kg N eq	1,51E-01	MND	MND	0	2,09E-03	5,83E-04	8,98E-04	-3,97E-02
Eutrophication terrestrial	mol N eq	1,55E+00	MND	MND	0	2,30E-02	6,00E-03	8,53E-03	-4,40E-01
Photochemical ozone formation	kg NMVOC eq	4,42E-01	MND	MND	0	5,82E-03	1,67E-03	2,37E-03	-1,17E-01
Abiotic resource depletion - minerals and metals	kg Sb eq	4,10E-04	MND	MND	0	2,61E-08	3,87E-07	1,64E-07	-3,22E-05
Abiotic resource depletion - fossils	MJ	2,00E+03	MND	MND	0	9,26E+00	9,68E+00	5,00E+00	-4,64E+02
Water use	m <sup>3</sup> eq	4,02E+00	MND	MND	0	6,98E-03	2,65E-01	6,02E+00	1,76E+01
Particulate matter emissions	disease inc.	1,36E-05	MND	MND	0	6,98E-08	1,74E-08	4,69E-08	-4,82E-06
Ionising radiation	kBq U235 eq	2,99E+01	MND	MND	0	2,94E-03	3,93E-01	2,43E-02	-1,38E+01
Ecotoxicity - freshwater	CTUe	1,36E+03	MND	MND	0	3,87E-02	7,58E+00	3,49E+01	-4,56E+01
Human toxicity, cancer effects	CTUh	1,36E-05	MND	MND	0	6,26E-10	3,14E-08	1,72E-08	-9,80E-07
Human toxicity, non-cancer effects	CTUh	3,80E-05	MND	MND	0	3,79E-09	1,37E-07	3,82E-07	-5,44E-06
Land use	Pt	1,22E+03	MND	MND	0	0	7,69E+00	8,80E+00	-2,06E+02

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction - Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Deconstruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

INDICATORS OF RESOURCES USE

**COR 4900 ANODIZED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Renewable primary energy as energy carrier	MJ	6,16E+02	MND	MND	0	2,25E-02	2,74E+00	7,28E-02	-2,87E+02
Renewable primary energy resource as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of renewable primary energy resources	MJ	6,16E+02	MND	MND	0	2,25E-02	2,74E+00	7,28E-02	-2,87E+02
Non-renewable primary energy as energy carrier	MJ	3,71E+03	MND	MND	0	1,69E+01	1,80E+01	9,44E+00	-8,55E+02
Non-renewable primary energy as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of non-renewable primary energy resources	MJ	3,71E+03	MND	MND	0	1,69E+01	1,80E+01	9,44E+00	-8,55E+02
Use of secondary materials	kg	5,18E+00	MND	MND	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of net fresh water	m <sup>3</sup>	4,08E-02	MND	MND	0	0	5,84E+00	7,63E-02	-1,33E+02
Hazardous waste disposed	kg	4,51E+00	MND	MND	0	1,48E-06	0	5,16E-07	-2,65E+00
Non-hazardous waste disposed	kg	2,54E+01	MND	MND	0	6,70E-04	0	3,39E+01	-1,23E+01
Radioactive waste disposed	kg	5,24E-02	MND	MND	0	0	0	0	-3,01E-02
Components for re-use	kg	0	MND	MND	0	0	0	0	0
Materials for recycling	kg	1,04E+01	MND	MND	0	0	3,08E+01	0	0
Materials for energy recovery	kg	0	MND	MND	0	0	4,65E+00	0	0
Exported energy	MJ	0	MND	MND	0	0	1,40E-02	0	0

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction – Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Decosntruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

INDICATORS OF THE ENVIRONMENTAL IMPACT

**COR 4900 COATED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Climatic Change - total	kg CO <sub>2</sub> eq	1,23E+02	MND	MND	0	6,71E-01	5,19E-01	3,45E-01	-3,01E+01
Climatic Change - fossil	kg CO <sub>2</sub> eq	1,23E+02	MND	MND	0	6,71E-01	5,17E-01	3,45E-01	-3,01E+01
Climate change - biogenic	kg CO <sub>2</sub> eq	1,16E-01	MND	MND	0	0	4,15E-04	5,19E-05	-2,66E-02
Climate change - land use and land use change	kg CO <sub>2</sub> eq	1,09E-01	MND	MND	0	0	1,89E-03	1,07E-05	-4,29E-02
Ozone depletion	kg CFC-11 eq	8,68E-06	MND	MND	0	1,03E-09	6,05E-08	5,18E-08	-1,11E-06
Acidification	mol H <sup>+</sup> eq	8,41E-01	MND	MND	0	4,47E-03	4,05E-03	1,83E-03	-2,83E-01
Eutrophication aquatic freshwater	kg PO <sub>4</sub> <sup>3-</sup> eq	9,34E-02	MND	MND	0	7,20E-04	6,42E-04	1,62E-03	-1,78E-02
Eutrophication aquatic marine	kg N eq	1,42E-01	MND	MND	0	2,11E-03	5,83E-04	9,11E-04	-4,05E-02
Eutrophication terrestrial	mol N eq	1,46E+00	MND	MND	0	2,31E-02	6,00E-03	8,56E-03	-4,49E-01
Photochemical ozone formation	kg NMVOC eq	4,16E-01	MND	MND	0	5,87E-03	1,67E-03	2,38E-03	-1,19E-01
Abiotic resource depletion - minerals and metals	kg Sb eq	3,36E-04	MND	MND	0	2,64E-08	3,87E-07	1,66E-07	-3,24E-05
Abiotic resource depletion - fossils	MJ	1,78E+03	MND	MND	0	9,34E+00	9,68E+00	5,01E+00	-4,76E+02
Water use	m <sup>3</sup> eq	4,01E+00	MND	MND	0	7,04E-03	2,65E-01	6,02E+00	1,75E+01
Particulate matter emissions	disease inc.	1,31E-05	MND	MND	0	7,03E-08	1,74E-08	4,71E-08	-4,96E-06
Ionising radiation	kBq U235 eq	2,00E+01	MND	MND	0	2,97E-03	3,93E-01	2,44E-02	-1,41E+01
Ecotoxicity - freshwater	CTUe	9,56E+02	MND	MND	0	3,90E-02	7,58E+00	3,84E+01	-4,57E+01
Human toxicity, cancer effects	CTUh	1,26E-05	MND	MND	0	6,31E-10	3,14E-08	1,77E-08	-9,83E-07
Human toxicity, non-cancer effects	CTUh	2,41E-05	MND	MND	0	3,82E-09	1,37E-07	4,18E-07	-5,51E-06
Land use	Pt	1,01E+03	MND	MND	0	0	7,69E+00	8,86E+00	-2,06E+02

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction - Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Deconstruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

INDICATORS OF RESOURCES USE

**COR 4900 COATED WINDOW 1m<sup>2</sup>**

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction	Use	End of Life				Module
		A1-A3	A4-A5	B1-B7	C1	C2	C3	C4	D
Renewable primary energy as energy carrier	MJ	5,28E+02	MND	MND	0	2,27E-02	2,74E+00	7,43E-02	-2,97E+02
Renewable primary energy resource as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of renewable primary energy resources	MJ	5,28E+02	MND	MND	0	2,27E-02	2,74E+00	7,43E-02	-2,97E+02
Non-renewable primary energy as energy carrier	MJ	3,30E+03	MND	MND	0	1,70E+01	1,80E+01	9,47E+00	-8,76E+02
Non-renewable primary energy as material utilization	MJ	0	MND	MND	0	0	0	0	0
Total use of non-renewable primary energy resources	MJ	3,30E+03	MND	MND	0	1,70E+01	1,80E+01	9,47E+00	-8,76E+02
Use of secondary materials	kg	5,14E+00	MND	MND	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	MND	MND	0	0	0	0	0
Use of net fresh water	m <sup>3</sup>	3,77E-02	MND	MND	0	0	5,84E+00	8,32E-02	-1,33E+02
Hazardous waste disposed	kg	4,49E+00	MND	MND	0	1,49E-06	0	5,16E-07	-2,77E+00
Non-hazardous waste disposed	kg	2,45E+01	MND	MND	0	6,75E-04	0	3,39E+01	-1,28E+01
Radioactive waste disposed	kg	5,23E-02	MND	MND	0	0	0	0	-3,14E-02
Components for re-use	kg	0	MND	MND	0	0	0	0	0
Materials for recycling	kg	1,04E+01	MND	MND	0	0	3,15E+01	0	0
Materials for energy recovery	kg	0	MND	MND	0	0	4,65E+00	0	0
Exported energy	MJ	0	MND	MND	0	0	1,40E-02	0	0

- A1. Raw materials supply
- A2. Transport
- A3. Manufacturing Product
- A4. Transport
- A5. Construction – Installation process

- B1. Use
- B2. Maintenance
- B3. Repair
- B4. Replacement
- B5. Refurbishment
- B6. Operational Energy use
- B7. Operational water use

- C1. Decosntruction and demolition
- C2. Transport
- C3. Waste management for reuse, recovery and recycling.
- C4. Disposal

MND. Module not declared

### 3.4. Potential environmental benefits and impacts derived from activities of reuse, recovery and recycling

**Table. Indicators of impact evolution. Reuse, recovery and recycling**  
Data included in the point tables 3.3. (pages 9 - 24):

COR 3500 ANODIZED WINDOW 1m <sup>2</sup>	page	9
COR 3500 COATED WINDOW 1m <sup>2</sup>	page	11
COR 60 ANODIZED WINDOW 1m <sup>2</sup>	page	13
COR 60 COATED WINDOW 1m <sup>2</sup>	page	15
COR 60 HO ANODIZED WINDOW 1m <sup>2</sup>	page	17
COR 60 HO COATED WINDOW 1m <sup>2</sup>	page	19
COR 70 ANODIZED WINDOW 1m <sup>2</sup>	page	21
COR 70 COATED WINDOW 1m <sup>2</sup>	page	23
COR 70 HO ANODIZED WINDOW 1m <sup>2</sup>	page	25
COR 70 HO COATED WINDOW 1m <sup>2</sup>	page	27
COR 80 ANODIZED WINDOW 1m <sup>2</sup>	page	29
COR 80 COATED WINDOW 1m <sup>2</sup>	page	31
COR 80 HO ANODIZED WINDOW 1m <sup>2</sup>	page	33
COR 80 HO COATED WINDOW 1m <sup>2</sup>	page	35
COR 4200 ANODIZED WINDOW 1m <sup>2</sup>	page	37
COR 4200 COATED WINDOW 1m <sup>2</sup>	page	39
COR 4900 ANODIZED WINDOW 1m <sup>2</sup>	page	41
COR 4900 COATED WINDOW 1m <sup>2</sup>	page	43

**Table. Life cycle inventory data. Reuse, recovery and recycling**  
Data included in the point tables 3.3. (pages 9 - 24):

COR 3500 ANODIZED WINDOW 1m <sup>2</sup>	page	10
COR 3500 COATED WINDOW 1m <sup>2</sup>	page	12
COR 60 ANODIZED WINDOW 1m <sup>2</sup>	page	14
COR 60 COATED WINDOW 1m <sup>2</sup>	page	16
COR 60 HO ANODIZED WINDOW 1m <sup>2</sup>	page	18
COR 60 HO COATED WINDOW 1m <sup>2</sup>	page	20
COR 70 ANODIZED WINDOW 1m <sup>2</sup>	page	22
COR 70 COATED WINDOW 1m <sup>2</sup>	page	24
COR 70 HO ANODIZED WINDOW 1m <sup>2</sup>	page	26
COR 70 HO COATED WINDOW 1m <sup>2</sup>	page	28
COR 80 ANODIZED WINDOW 1m <sup>2</sup>	page	30
COR 80 COATED WINDOW 1m <sup>2</sup>	page	32
COR 80 HO ANODIZED WINDOW 1m <sup>2</sup>	page	34
COR 80 HO COATED WINDOW 1m <sup>2</sup>	page	36
COR 4200 ANODIZED WINDOW 1m <sup>2</sup>	page	38
COR 4200 COATED WINDOW 1m <sup>2</sup>	page	40
COR 4900 ANODIZED WINDOW 1m <sup>2</sup>	page	42
COR 4900 COATED WINDOW 1m <sup>2</sup>	page	44

### 3.5. Recommendations of this DAP

The comparison of construction products can only be carried out under the same functional unit and once the product is performing its function within the building throughout its entire life cycle.

The EPD of different systems may not be directly comparable due to a gap between the product category rules and regulations on which the calculation of the impact categories and the input and output parameters is based.

### 3.6. Cut-off rules

More than 95% of all the mass and energy inputs and outputs of the system have been included, leaving out, among other things, diffuse factory emissions.

### 3.7. Additional environmental information

The product does not contain substances included on the European Chemicals Agency's Candidate List of Substances of Very High Concern for Authorization.

### 3.8. Other data

Module Not Declared

## 4. TECHNICAL INFORMATION AND SCENARIOS

### 4.1. Transport from the factory to the building site (A4)

Module Not Declared

### 4.2. Installation processes (A5)

Module Not Declared

### 4.3. Reference service life (B1)

Module Not Declared

### 4.4. Maintenance (B2), repair (B3), replacement (B4) or refurbishment (B5)

Module Not Declared

### 4.5. Operational use of energy (B6) and water (B7)

Module Not Declared

### 4.6. End of life (C1-C4)

Process	Parameter expressed for declared unit of the components, products or materials
Collection processes	Metals 95%. Plàstics 95%. Glass 30%.
Recycling systems	Metals 95%. Glass 30%.
Disposal	Metals 5%. Plàstics 5%. Glass 70%.

## 5. ADDITIONAL INFORMATION

The products do not release hazardous substances during the use phase nor do they contain any substances included in the Candidate List of Substances of Very High Concern for Authorization with a concentration greater than 0.1% by weight.

- The Uf Thermal Transmittance values have been obtained by calculation according to EN-ISO 10077-2 and those of Uw by calculation according to EN-ISO 10077-1.
- Air permeability, water tightness and wind resistance have been obtained through tests under the EN 1026, EN1027 and EN 12211 standards and classified according to EN 12207, EN 12208 and EN12210 standards respectively.
- The acoustic performance Rw has been obtained by calculation according to the EN-ISO 12354-3 standard

CORTIZO has the following quality certificates and management systems implemented:

- Qualanod Certificate. License No. 1027. Qualicoat Certificate "SEASIDE". License No. 402. Qualideco Certificate License No. ES-0014F
- ISO 9001 Exp No. ES093238-2. ISO 14001 Exp No. ES079012-. OSHAS 18001 Exp No. ES092017-1

## 6. PCR AND VERIFICATION

<b>This declaration is based on the Document</b>	
RCP100. Productos de construcción en general. Version 2 – 29.02.2016	
<b>Independent verification of the declaration and data according to ISO 14025 and UNE EN15804 + A1</b>	
<input type="checkbox"/> Internal	<input checked="" type="checkbox"/> External
<b>Independent verifier appointed</b>	 Oficina d'Accreditació d'Entitats Col·laboradores <b>Verificació VEDAP-001-10</b>
Ferran Pérez, ITEC verificador	
<b>Fecha de la verificación:</b>	
21 / 10 / 2020	
<b>Referencias</b>	
<ul style="list-style-type: none"> <li>• Informe de ACV para DAP de productos CORTIZO: Ventanas, puertas de exterior y muros cortina. IDNÓVAM, julio 2020</li> <li>• UNE EN 15804:2012+A1:2014, Sostenibilidad en la construcción. Declaraciones ambientales de producto. Reglas de categoría de producto básicas para productos de construcción</li> <li>• EN 17213:2019 - Windows and doors - Environmental Product Declarations - Product category rules for windows and pedestrian doorsets</li> <li>• K. Peeters, C. Spirinckx, LOT 32 / Ecodesign of Window Products Task 2-Market Analysis, 2015.</li> <li>• Tackling recycling aspects in EN15804 - Christian Leroy, Jean-Sebastien Thomas, Nick Avery, Jan Bollen, and Ladji Tikana. International Symposium on Life Cycle Assessment and Construction, 2012.</li> <li>• Aluminium Recycling in LCA – European Aluminium Association, 2013.</li> <li>• European Life Cycle Database. ELCD 3.3. <a href="http://eplca.jrc.ec.europa.eu/ELCD3/index.xhtml?stock=default">http://eplca.jrc.ec.europa.eu/ELCD3/index.xhtml?stock=default</a></li> </ul>	

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