



Environmental Product Declaration



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

Wood- and wood aluminum clad windows and patio doors from Svenska Fönster AB

Programme: The International EPD® System, www.environdec.com

Programme operator: EPD International AB

EPD registration number: S-P-01969

Publication date: 2020-04-16

Revision date: 2023-04-03

Valid until: 2027-08-16

An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com

General information

Programme information

Programme: The International EPD® System

Address: EPD International AB

Box 210 60

SE-100 31 Stockholm

Sweden

Website: www.environdec.com

E-mail: info@environdec.com

Accountabilities for PCR, LCA and independent, third-party verification Product Category Rules (PCR)

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

Product Category Rules (PCR):

PCR 2019:14 Construction products (EN 15804:A2) (1.11)

PCR 2019:14-c-PCR-007 c-PCR-007 Windows and doors (EN 17213) (2020-04-09)

PCR review was conducted by: CEN Technical Committee

The review panel may be contacted via the Secretariat www.environdec.com/contact.

Third-party verification

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

EPD verification by individual verifier

Third-party verifier: Martyna Mikusinska, Sweco

Approved by: The International EPD® System

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

Yes No

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

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

Company information

Owner of the EPD: Svenska Fönster AB
 Address: Snickarvägen 12, 828 30 Edsbyn, Sweden
 Contact person: Camilla Olsson
 Phone: + 46 (0) 271 - 294 37
 E-mail: Camilla.Olsson@svenskafonster.se

Location of production site:

Snickarvägen 12
 828 30 Edsbyn, Sweden

Description of the organisation

Svenska Fönster AB is one of Sweden's leading window manufacturers with over 80 years of experience in window making. The company was formed through the joining of the companies Traryd Fönster and SP Fönster with the idea of creating a competitive and resourceful player at the Swedish window market. Svenska Fönster AB is a part of Dovista that is one of the leading manufacturers of facade windows and doors in Europe. Dovista is in turn apart of VKR Holding A/S.

Product-related or management system-related certifications: Svenska Fönster AB is certified according to ISO 14001.

Product information

| Name | Product group | Type | U-value |
|---|-----------------------|---------------|---------|
| 1. Wood sidehung window 3-glass | Produkt-grupp SF 2010 | Fönster | 1,2 |
| 2. Wood/aluminum sidehung window 3-glass | | | 1,2 |
| 3. Wood fully reversable window 3-glass | | | 1,2 |
| 4. Wood/aluminum fully reversable window 3-glass | | | 1,2 |
| 5. Wood fixed window 3-glass | | | 1,1 |
| 6. Wood/aluminum fixed window 3-glass | | | 1,1 |
| 7. Wood/aluminum inward window 3-glass | Produkt-grupp Intakt | | 1,2 |
| 8. Wood/aluminum inward window 2+1-glass | | | 1,1 |
| 9. Wood/aluminum inward window 3+1-glass | | | 0,78 |
| 10. Wood/aluminum inward Kipp-dreh window 3-glass | | | 1,2 |
| 11. Wood/aluminum inward Kipp-dreh window 2+1-glass | | | 1,1 |
| 12. Wood/aluminum inward Kipp-dreh window 3+1-glass | | | 0,78 |
| 13. Wood outward patio door 3-glass | Produkt-grupp SF 2010 | Fönsterdörrar | 1,2 |
| 14. Wood/aluminum outward patio door 3-glass | 1,2 | | |
| 15. Wood/aluminum inward patio door 3-glass | Produkt-grupp Intakt | | 1,2 |
| 16. Wood/aluminum inward patio door 2+1-glass | | | 1,1 |
| 17. Wood aluminum outward patio door 2+1-glass | | | 1,2 |
| 18. Wood aluminum outward patio door 3+1-glass | | | 0,92 |



1. Wood sidehung window 3-glass



2. Wood/aluminum sidehung window 3-glass



3. Wood fully reversible window 3-glass



4. Wood/aluminum fully reversible window 3-glass



5. Wood fixed window 3-glass



6. Wood/aluminum fixed window 3-glass



7. Wood/aluminum inward window 3-glass



8. Wood/aluminum inward window 2+1-glass



9. Wood/aluminum inward window 3+1-glass



10. Wood/aluminum inward Kipp-dreh window 3-glass



11. Wood/aluminum inward Kipp-dreh window 2+1-glass



12. Wood/aluminum inward Kipp-dreh window 3+1-glass



13. Wood outward patio door 3-glass



14. Wood/aluminum outward patio door 3-glass



15. Wood/aluminum inward patio door 3-glass



16. Wood/aluminum inward patio door 2+1-glass



17. Wood/aluminum outward patio door 2+1-glass



18. Wood/aluminum outward patio door 3+1-glass

Product description: The wood and wood aluminum clad windows in this EPD are manufactured with four different opening designs; side hung window (standard), fully reversible window, kipp-dreh and fixed window. The wood and aluminium patio doors are either inward or outward designed. All products consist of a glass cassette that is mounted in a frame/profile which may consist of wood or wood/aluminum. In addition to the glass cassette and frame/profile with related seals and rubber mouldings, there are several fittings, handles and mechanisms for closing and opening the window or patio door.

All windows are single-light with the measurements 1230 x 1480 mm. All patio doors have the measurements 1230 x 2180 mm. Products with 2+1 and 3-glass have a U-factor 1,1-1,2 W/m², K. Products with 3+1 glass have a U-factor 0,78-0,92 W/m², K.

The glass cassettes are triple insulated 3-glass, 2+1 glass or 3+1 glass. All products are produced in the factory in Edsbyn and the wood used in the frame is manufactured in Söderhamn. All the wood used in our products consists of 100% pine.

About 40% of the glass cassettes are purchased ready-made from two different suppliers in Europe and 60 % are being manufactured at the production site in Edsbyn. Handles and fittings etc. are purchased from various suppliers.

UN CPC code: 54
Geographical scope: Sweden
Type of EPD: Specific

System diagram:



| LCA information | |
|--------------------------------|--|
| Functional Unit/ Declared Unit | 1 m2 window/patio door |
| Conversion factor | <p>Wood sidehung window 3-glass - 1 m2 = 35,5 kg Wood/aluminum sidehung window 3-glass - 1 m2 = 36,6 kg Wood fully reversable window 3-glass - 1 m2 = 36,8 kg Wood/aluminum fully reversable window 3-glass - 1 m2 = 37,6 kg Wood fixed window 3-glass - 1 m2 = 34,3 kg Wood/aluminum fixed window 3-glass - 1 m2 = 34,8 kg Wood/aluminum inward window 3-glass - 1 m2 = 38,7 kg Wood/aluminum inward window 2+1-glass - 1 m2 = 37,5 kg Wood/aluminum inward window 3+1-glass - 1 m2 = 45,6 kg Wood/aluminum inward Kipp-dreh window 3-glass - 1 m2 = 39,5 kg Wood/aluminum inward Kipp-dreh window 2+1-glass - 1 m2 = 38,0 kg Wood/aluminum inward Kipp-dreh window 3+1-glass - 1 m2 = 46,1 kg Wood outward patio door- 1 m2 = 28,1 kg Wood/aluminum outward patio door- 1 m2 = 28,8 kg Wood/aluminum inward patio door 3-glass- 1 m2 = 30,2 kg Wood/aluminum inward patio door 2+1-glass - 1 m2 = 31,3 kg Wood/aluminum outward patio door 2+1-glass- 1 m2 = 31,1 kg Wood/aluminum outward patio door 3+1-glass- 1 m2 = 35,4 kg</p> |
| System boundaries | Cradle to gate with modules C1-C4 and module D (A1-A3 + C + D) |
| Reference service life: | No RSL is declared. |
| Cut-off rules | <p>The following procedure was used for the exclusion of inputs and outputs according to the EN 15804:2012+ A2:2019 standard:</p> <ul style="list-style-type: none"> In the case of insufficient input data or data gaps for a unit process, the cut-off criterion is 1 % of renewable and non-renewable primary energy usage and 1 % of the total mass input to that unit process. The maximum neglected input flows per declared module (A1- A3) is 5 % of energy usage and mass. The cut-off rules were applied only in the case of the additional impact categories (according to the EN 15804:2012+ A2:2019) for sealant and in the case of primary energy resources of the window paint |
| Background data | Ecoinvent 3.8 database is used as generic background data source. |
| Time representativeness | The LCA is based on production data from 2018 but is deemed to be representative of an average year of production. |
| Database(s) and LCA software | The LCA software is SimPro 9.3.0.3 and the database is EcoInvent 3.8. When modeling in Simapro, Ecoinvent data (updated November 2021) has been used for generic data. |
| Data quality | <p>When modeling in Simapro, Ecoinvent data (updated November 2021) has been used for generic data. The database is considered to be of high quality. For some material supplier's product specific and third party verified EPD's has been used. The EPD's used is considered to be of high quality.</p> <p>Input data for the water-based paint which used in this EPD comes from an unverified LCA-report. The data is specific because it is the same paint that is being used by Svenska Fönster.</p> |
| Allocations | Allocation is performed according to EN15804:2012. Allocation between the production of wood and the by-products of chip and knob regarding forestry and transport of timber to the sawmill has been done based on mass. Economic allocation has been applied for the production in the sawmill and the production of by-products (chip and knob) at the window production site. |
| Comparability | A comparison or an evaluation of EPD data is only possible where EN 15804 has been followed, and the same building context and product-specific characteristics of performance are considered and the same stages have been included in the system boundary. According to EN 15804, EPD of construction products may not be comparable if they do not comply with this standard. |

Estimates and assumptions

- For all wood and finger jointed wood, the density of 450 kg / m³ is assumed.
- A share of 51 % pine and 49 % spruce is assumed at the sawmill.
- The electricity used at the production site is assumed to contain 24 % wind power, 76 % hydropower. Information has been collected from the supplier’s website.
- The water-based paint is assumed to have a density of 1.2 kg/l.
- Transport distances that are not specified have been assumed using city or country.
- Unspecified modes of transport have been assumed to be trucks or trucks and ferries (when the transport is assumed to cross the Baltic Sea).
- Truck transports within Europe is assumed to have environmental class EURO 5 and within Sweden EURO 6. For transport within Sweden, the reduction obligation has been taken into account.
- Wood oil used on thresholds of patio doors has been assumed to be comparable to acrylic paint. The consumption has been assumed to be 0.64 kg/m² wood. Proportion of water in solution 95.95 %.
- Glass cassettes not manufactured by Svenska fönster AB have been modeled with EPD data and generic data.
- In the C module the end-of-life scenario considered is that the window is demounted during the deconstruction process and no separate energy from machine is required for this process The entire window is transported to a municipal waste collection and

sorting station, the average transport distance from the demolition place to the station is assumed to be 50 km. At the station a material separation process takes place. Wooden parts will be incinerated and the distance of the transport of the wooden content from the sorting station to the CHP plant for energy recovery is assumed to be 20 km. The processes of chipping and incineration are not included. The aluminum cladding and the steel fittings are sent for recycling, the distance for aluminium and for steel from the waste collection to the recycling facilities is assumed to be 200 km. Glass cassettes are assumed to be transported from the waste sorting station to landfill, the distance considered is 10 km.

- In the D module the benefits and loads beyond the system boundary are calculated. Wood energy recovery and aluminium and steel recycling are considered. Energy recovery of the wood product in CHP plants produces district heating and electricity and thus replaces Swedish medium district heating (mixed combustion of wooden products and waste) and Swedish electricity mix. It is assumed that 100 % of the wood material included in the product is incinerated for energy recovery at CHP plant. When calculating module D, it is assumed that 100 % of the wood is treated in a CHP plant with an efficiency of 80%. It is also assumed that 14% of the inherent energy provides electricity and 86% of the energy provides district heating. The aluminium and steel from the windows and patio doors is considered to replace the supply of virgin material.

System boundaries:

| Included | Excluded |
|---|--|
| <p>Production and distribution</p> <ul style="list-style-type: none"> • Production of all consumed raw materials and goods, including waste/spill material from production process, packaging etc. • Energy and fuels • Transports of raw material and consumed goods to production site. • Production processes. • Transport to recipient and disposal of hazardous waste from production stage. • Transport to recipient of recyclable waste and spill material derived from the production stage. | <p>Production and distribution</p> <ul style="list-style-type: none"> • Raw material and production of small screws • Transport of ready-made window/patio door from production site to customer. |
| <p>Operation and maintenance</p> <p>-</p> | <p>Operation and maintenance</p> <ul style="list-style-type: none"> • All maintenance of the windows/patio doors is excluded. |
| <p>End-of-life (C1-C4)</p> <ul style="list-style-type: none"> • Transport from building to site for demolition/dismantling, waste processing and further transport to facility for energy recovery, reuse or landfill • Benefits and loads beyond the system boundary (D) | <p>End-of-life (C1-C4)</p> <ul style="list-style-type: none"> • Environmental impact from incineration for energy recovery at CHP plant for wood |

More information: LCA practitioners: Anna Pantze and Carmen Cristescu at Tyréns Sverige AB

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

| | Product stage | | | Construction process stage | | Use stage | | | | | | | End of life stage | | | | Resource recovery stage | |
|----------------------|---------------------|-----------|---------------|----------------------------|---------------------------|-----------|-------------|--------|-------------|---------------|------------------------|-----------------------|----------------------------|-----------|------------------|----------|-------------------------|---|
| | Raw material supply | Transport | Manufacturing | Transport | Construction installation | Use | Maintenance | Repair | Replacement | Refurbishment | Operational energy use | Operational water use | De-construction demolition | Transport | Waste processing | Disposal | | |
| Module | A1 | A2 | A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D | |
| Modules declared | X | X | X | ND | ND | ND | ND | ND | ND | ND | ND | ND | X | X | X | X | X | |
| Geography | EU | EU | SE | ND | ND | ND | ND | ND | ND | ND | ND | ND | SE | SE | SE | SE | EU | |
| Specific data used | >90% | | | | | - | - | - | - | - | - | - | - | - | - | - | - | |
| Variation - products | <10% | | | | | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Variation - sites | Not relevant | | | | | - | - | - | - | - | - | - | - | - | - | - | - | - |

1. Wood sidehung window 3-glass (SF 2010)

Content information

| Product components | Weight, kg/m ² | Post-consumer material, weight-% | Renewable material, weight-% |
|-----------------------|---------------------------|----------------------------------|------------------------------|
| Glass | 22,88 | 0% | 0% |
| Edge sealing compound | 0,66 | 0% | 0% |
| Butyl | 0,02 | 0% | 0% |
| Desiccant | 0,16 | 0% | 0% |
| Aluminium | 0,94 | 2% | 0% |
| Argon | 0,04 | 0% | 0% |
| Wood | 8,29 | 0% | 0% |
| Plastic | 0,07 | 0% | 0% |
| Steel | 1,63 | 55% | 0% |
| Rubber EPDM | 0,36 | 0% | 0% |
| Glue | 0,07 | 0% | 0% |
| Sealant | 0,04 | 0% | 0% |
| Paint | 0,37 | 0% | 0% |
| TOTAL | 35,51 | 3% | 0% |
| Packaging materials | Weight, kg | Weight-% (versus the product) | |
| Plastic | 0,085 | 0,2% | |
| Carton | 0,3 | 0,8% | |
| Plywood | 0,54 | 1,5% | |
| TOTAL | 0,9 | 2,6% | |

The declared products do not contain any dangerous substances according to the candidate list of substances of very high concern for authorisation by the European Chemicals Agency.

Environmental information

Potential environmental impact – mandatory indicators according to EN 15804

| Results per 1 m ² window. Wood sidehung window 3-glass | | | | | | | |
|---|--|-----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-fossil | kg CO ₂ eq. | 6,20E+01 | 0,00E+00 | 3,48E-01 | 9,38E-02 | 9,71E-02 | -8,52E+00 |
| GWP-biogenic | kg CO ₂ eq. | -1,15E+01 | 0,00E+00 | 8,04E-02 | 1,28E+01 | 8,51E-04 | -7,54E-01 |
| GWP-luluc | kg CO ₂ eq. | 2,13E-01 | 0,00E+00 | 1,69E-04 | 5,84E-05 | 2,18E-05 | -1,44E-01 |
| GWP-total | kg CO ₂ eq. | 5,07E+01 | 0,00E+00 | 4,29E-01 | 1,29E+01 | 9,80E-02 | -9,41E+00 |
| ODP | kg CFC 11 eq. | 2,32E+05 | 0,00E+00 | 7,79E-08 | 1,11E-08 | 4,81E-08 | -5,93E-07 |
| AP | mol H ⁺ eq. | 5,35E-01 | 0,00E+00 | 1,06E-03 | 5,55E-04 | 9,53E-04 | -4,50E-02 |
| EP-freshwater | kg P eq. | 1,92E-02 | 0,00E+00 | 2,73E-05 | 2,41E-05 | 5,53E-06 | -3,72E-03 |
| EP-marine | kg N eq. | 6,53E-02 | 0,00E+00 | 2,29E-04 | 2,49E-04 | 3,60E-04 | -9,46E-03 |
| EP-terrestrial | mol N eq. | 7,27E-01 | 0,00E+00 | 2,50E-03 | 1,99E-03 | 3,95E-03 | -7,54E-02 |
| POCP | kg NMVOC eq. | 2,25E-01 | 0,00E+00 | 9,55E-04 | 5,57E-04 | 1,13E-03 | -3,39E-02 |
| ADP-minerals&metals* | kg Sb eq. | 1,50E-03 | 0,00E+00 | 1,52E-06 | 1,81E-06 | 1,90E-07 | -1,50E-05 |
| ADP-fossil* | MJ | 8,74E+02 | 0,00E+00 | 5,21E+00 | 9,75E-01 | 3,14E+00 | -1,38E+02 |
| WDP | m ³ | 1,94E+01 | 0,00E+00 | 1,91E-02 | 9,58E-03 | 9,72E-03 | -9,55E-01 |
| Acronyms | <p>GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption</p> | | | | | | |

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

Potential environmental impact – additional mandatory and voluntary indicators

| Results per 1 m ² window. Wood sidehung window 3-glass | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-GHG ¹ | kg CO ₂ eq. | 6,17E+01 | 0,00E+00 | 3,45E-01 | 1,27E-01 | 9,58E-02 | -8,44E+00 |
| Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017 | | | | | | | |

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

Use of resources

| Results per 1 m ² window. Wood sidehung window 3-glass | | | | | | | |
|---|---|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| PERE | MJ | 1,26E+02 | 0,00E+00 | 9,00E-02 | 7,40E-02 | 6,40E-02 | -4,54E+01 |
| PERM | MJ | 1,40E+02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,47E-01 |
| PERT | MJ | 2,66E+02 | 0,00E+00 | 9,00E-02 | 7,40E-02 | 6,40E-02 | -4,49E+01 |
| PENRE | MJ | 9,26E+02 | 0,00E+00 | 5,54E+00 | 1,03E+00 | 3,34E+00 | -1,44E+02 |
| PENRM | MJ. | 2,16E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| PENRT | MJ | 9,28E+02 | 0,00E+00 | 5,54E+00 | 1,03E+00 | 3,34E+00 | -1,61E+01 |
| SM | kg | 9,14E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| RSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| NRSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| FW | m ³ | 1,00E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Acronyms | <p>PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water</p> | | | | | | |

Waste production and output flows

Waste production

| Results per 1 m ² window. Wood sidehung window 3-glass | | | | | | | |
|---|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Hazardous waste disposed | kg | 7,26E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Non-hazardous waste disposed | kg | 1,25E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Radioactive waste disposed | kg | 5,12E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Output flows

| Results per 1 m ² window. Wood sidehung window 3-glass | | | | | | | |
|---|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Components for re-use | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Material for recycling | kg | 6,61E-02 | 0,00E+00 | 0,00E+00 | 2,57E+00 | 0,00E+00 | 0,00E+00 |
| Materials for energy recovery | kg | 2,49E-01 | 0,00E+00 | 0,00E+00 | 8,35E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, electricity | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, thermal | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Information on biogenic carbon content

| Results per 1 m ² window. Wood sidehung window 3-glass | | |
|---|------|----------|
| BIOTIC CARBON CONTENT | Unit | QUANTITY |
| Biogenic carbon content in product | kg C | 3,6 |
| Biogenic carbon content in packaging | kg C | 0,40 |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

2. Wood/aluminum sidehung window 3-glass (SF 2010)

Content information

| Product components | Weight, kg | Post-consumer material, weight-% | Renewable material, weight-% |
|-----------------------|------------|----------------------------------|------------------------------|
| Glass | 22,88 | 0% | 0% |
| Edge sealing compound | 0,66 | 0% | 0% |
| Butyl | 0,02 | 0% | 0% |
| Desiccant | 0,16 | 0% | 0% |
| Aluminium | 2,14 | 2% | 0% |
| Argon | 0,04 | 0% | 0% |
| Wood | 8,06 | 0% | 0% |
| Plastic | 0,14 | 0% | 0% |
| Steel | 1,63 | 55% | 0% |
| Rubber EPDM | 0,36 | 0% | 0% |
| Glue | 0,07 | 0% | 0% |
| Sealant | 0,04 | 0% | 0% |
| Paint | 0,37 | 0% | 0% |
| TOTAL | 36,57 | 3% | 0% |
| Packaging materials | Weight, kg | Weight-% (versus the product) | |
| Plastic | 0,085 | 0,2% | |
| Carton | 0,3 | 0,8% | |
| Plywood | 0,54 | 1,5% | |
| TOTAL | 0,9 | 2,5% | |

The declared products do not contain any dangerous substances according to the candidate list of substances of very high concern for authorisation by the European Chemicals Agency.

Environmental information

Potential environmental impact – mandatory indicators according to EN 15804

| Results per 1 m ² window. Wood/aluminum sidehung window 3-glass | | | | | | | |
|--|--|-----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-fossil | kg CO ₂ eq. | 7,24E+01 | 0,00E+00 | 3,87E-01 | 1,32E-01 | 9,71E-02 | -1,66E+01 |
| GWP-biogenic | kg CO ₂ eq. | -1,11E+01 | 0,00E+00 | 8,93E-02 | 1,24E+01 | 8,51E-04 | -8,00E-01 |
| GWP-luluc | kg CO ₂ eq. | 4,23E-01 | 0,00E+00 | 1,88E-04 | 8,70E-05 | 2,18E-05 | -3,38E-01 |
| GWP-total | kg CO ₂ eq. | 6,18E+01 | 0,00E+00 | 4,76E-01 | 1,25E+01 | 9,80E-02 | -1,77E+01 |
| ODP | kg CFC 11 eq. | 2,28E+05 | 0,00E+00 | 8,66E-08 | 1,48E-08 | 4,81E-08 | -1,45E-06 |
| AP | mol H ⁺ eq. | 6,00E-01 | 0,00E+00 | 1,18E-03 | 7,44E-04 | 9,53E-04 | -9,81E-02 |
| EP-freshwater | kg P eq. | 2,48E-02 | 0,00E+00 | 3,04E-05 | 3,60E-05 | 5,53E-06 | -8,44E-03 |
| EP-marine | kg N eq. | 7,43E-02 | 0,00E+00 | 2,55E-04 | 3,33E-04 | 3,60E-04 | -1,65E-02 |
| EP-terrestrial | mol N eq. | 8,10E-01 | 0,00E+00 | 2,77E-03 | 2,55E-03 | 3,95E-03 | -1,40E-01 |
| POCP | kg NMVOC eq. | 2,57E-01 | 0,00E+00 | 1,06E-03 | 7,16E-04 | 1,13E-03 | -5,81E-02 |
| ADP-minerals&metals* | kg Sb eq. | 1,53E-03 | 0,00E+00 | 1,68E-06 | 2,71E-06 | 1,90E-07 | -3,00E-05 |
| ADP-fossil* | MJ | 1,04E+03 | 0,00E+00 | 5,79E+00 | 1,35E+00 | 3,14E+00 | -2,62E+02 |
| WDP | m ³ | 2,05E+01 | 0,00E+00 | 2,12E-02 | 1,42E-02 | 9,72E-03 | -1,53E+00 |
| Acronyms | <p>GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption</p> | | | | | | |

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

Potential environmental impact – additional mandatory and voluntary indicators

| Results per 1 m ² window. Wood/aluminum sidehung window 3-glass | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-GHG ² | kg CO ₂ eq. | 7,21E+01 | 0,00E+00 | 3,83E-01 | 1,82E-01 | 9,58E-02 | -1,65E+01 |
| Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017 | | | | | | | |

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

Use of resources

| Results per 1 m ² window. Wood/aluminum sidehung window 3-glass | | | | | | | |
|--|---|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| PERE | MJ | 1,82E+02 | 0,00E+00 | 1,00E-01 | 1,11E-01 | 6,40E-02 | -9,61E+01 |
| PERM | MJ | 1,36E+02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,47E-01 |
| PERT | MJ | 3,18E+02 | 0,00E+00 | 1,00E-01 | 1,11E-01 | 6,40E-02 | -9,56E+01 |
| PENRE | MJ | 1,10E+03 | 0,00E+00 | 6,15E+00 | 1,43E+00 | 3,34E+00 | -2,76E+02 |
| PENRM | MJ. | 4,73E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| PENRT | MJ | 1,10E+03 | 0,00E+00 | 6,15E+00 | 1,43E+00 | 3,34E+00 | -3,10E+01 |
| SM | kg | 9,38E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| RSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| NRSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| FW | m ³ | 1,00E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Acronyms | <p>PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water</p> | | | | | | |

Waste production and output flows

Waste production

| Results per 1 m ² window. Wood/aluminum sidehung window 3-glass | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Hazardous waste disposed | kg | 7,26E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Non-hazardous waste disposed | kg | 1,25E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Radioactive waste disposed | kg | 5,12E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Output flows

| Results per 1 m ² window. Wood/aluminum sidehung window 3-glass | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Components for re-use | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Material for recycling | kg | 1,50E-01 | 0,00E+00 | 0,00E+00 | 3,77E+00 | 0,00E+00 | 0,00E+00 |
| Materials for energy recovery | kg | 2,42E-01 | 0,00E+00 | 0,00E+00 | 8,21E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, electricity | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, thermal | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Information on biogenic carbon content

| Results per 1 m ² window. Wood/aluminum sidehung window 3-glass | | |
|--|------|----------|
| BIOTIC CARBON CONTENT | Unit | QUANTITY |
| Biogenic carbon content in product | kg C | 3,5 |
| Biogenic carbon content in packaging | kg C | 0,40 |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

3. Wood fully reversible window 3-glass (SF 2010)

Content information

| Product components | Weight, kg | Post-consumer material, weight-% | Renewable material, weight-% |
|-----------------------|------------|----------------------------------|------------------------------|
| Glass | 22,88 | 0% | 0% |
| Edge sealing compound | 0,66 | 0% | 0% |
| Butyl | 0,02 | 0% | 0% |
| Desiccant | 0,16 | 0% | 0% |
| Aluminium | 1,37 | 2% | 0% |
| Argon | 0,04 | 0% | 0% |
| Wood | 7,99 | 0% | 0% |
| Plastic | 0,07 | 0% | 0% |
| Steel | 2,75 | 55% | 0% |
| Rubber EPDM | 0,36 | 0% | 0% |
| Glue | 0,07 | 0% | 0% |
| Sealant | 0,04 | 0% | 0% |
| Paint | 0,37 | 0% | 0% |
| TOTAL | 36,77 | 4% | 0% |
| Packaging materials | Weight, kg | Weight-% (versus the product) | |
| Plastic | 0,085 | 0,2% | |
| Carton | 0,3 | 0,8% | |
| Plywood | 0,54 | 1,5% | |
| TOTAL | 0,9 | 2,5% | |

The declared products do not contain any dangerous substances according to the candidate list of substances of very high concern for authorisation by the European Chemicals Agency.

Environmental information

Potential environmental impact – mandatory indicators according to EN 15804

| Results per 1 m ² window. Wood fully reversable window 3-glass | | | | | | | |
|---|--|-----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-fossil | kg CO ₂ eq. | 7,08E+01 | 0,00E+00 | 3,96E-01 | 1,43E-01 | 9,71E-02 | -1,22E+01 |
| GWP-biogenic | kg CO ₂ eq. | -8,51E+00 | 0,00E+00 | 9,15E-02 | 1,11E+01 | 8,51E-04 | -7,48E-01 |
| GWP-luluc | kg CO ₂ eq. | 2,97E-01 | 0,00E+00 | 1,92E-04 | 9,53E-05 | 2,18E-05 | -2,13E-01 |
| GWP-total | kg CO ₂ eq. | 6,26E+01 | 0,00E+00 | 4,88E-01 | 1,12E+01 | 9,80E-02 | -1,31E+01 |
| ODP | kg CFC 11 eq. | 8,27E+04 | 0,00E+00 | 8,87E-08 | 1,59E-08 | 4,81E-08 | -9,29E-07 |
| AP | mol H ⁺ eq. | 5,75E-01 | 0,00E+00 | 1,21E-03 | 7,99E-04 | 9,53E-04 | -6,66E-02 |
| EP-freshwater | kg P eq. | 2,35E-02 | 0,00E+00 | 3,11E-05 | 3,94E-05 | 5,53E-06 | -5,72E-03 |
| EP-marine | kg N eq. | 7,43E-02 | 0,00E+00 | 2,61E-04 | 3,58E-04 | 3,60E-04 | -1,25E-02 |
| EP-terrestrial | mol N eq. | 8,14E-01 | 0,00E+00 | 2,84E-03 | 2,72E-03 | 3,95E-03 | -1,05E-01 |
| POCP | kg NMVOC eq. | 2,56E-01 | 0,00E+00 | 1,09E-03 | 7,62E-04 | 1,13E-03 | -4,63E-02 |
| ADP-minerals&metals* | kg Sb eq. | 1,64E-03 | 0,00E+00 | 1,73E-06 | 2,98E-06 | 1,90E-07 | -1,92E-05 |
| ADP-fossil* | MJ | 9,44E+02 | 0,00E+00 | 5,93E+00 | 1,45E+00 | 3,14E+00 | -1,89E+02 |
| WDP | m ³ | 2,20E+01 | 0,00E+00 | 2,17E-02 | 1,56E-02 | 9,72E-03 | -1,19E+00 |
| Acronyms | <p>GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption</p> | | | | | | |

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

Potential environmental impact – additional mandatory and voluntary indicators

| Results per 1 m ² window. Wood fully reversable window 3-glass | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-GHG ³ | kg CO ₂ eq. | 7,04E+01 | 0,00E+00 | 3,93E-01 | 1,99E-01 | 9,58E-02 | -1,20E+01 |
| Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017 | | | | | | | |

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

Use of resources

| Results per 1 m ² window. Wood fully reversible window 3-glass | | | | | | | |
|---|---|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| PERE | MJ | 1,60E+02 | 0,00E+00 | 1,02E-01 | 1,21E-01 | 6,40E-02 | -6,32E+01 |
| PERM | MJ | 1,35E+02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,47E-01 |
| PERT | MJ | 2,95E+02 | 0,00E+00 | 1,02E-01 | 1,21E-01 | 6,40E-02 | -6,27E+01 |
| PENRE | MJ | 1,00E+03 | 0,00E+00 | 6,30E+00 | 1,54E+00 | 3,34E+00 | -1,98E+02 |
| PENRM | MJ. | 2,16E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| PENRT | MJ | 1,00E+03 | 0,00E+00 | 6,30E+00 | 1,54E+00 | 3,34E+00 | -2,25E+01 |
| SM | kg | 1,54E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| RSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| NRSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| FW | m ³ | 1,00E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Acronyms | <p>PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water</p> | | | | | | |

Waste production and output flows

Waste production

| Results per 1 m ² window. Wood fully reversible window 3-glass | | | | | | | |
|---|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Hazardous waste disposed | kg | 7,23E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Non-hazardous waste disposed | kg | 1,02E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Radioactive waste disposed | kg | 4,02E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Output flows

| Results per 1 m ² window. Wood fully reversible window 3-glass | | | | | | | |
|---|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Components for re-use | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Material for recycling | kg | 9,59E-02 | 0,00E+00 | 0,00E+00 | 4,12E+00 | 0,00E+00 | 0,00E+00 |
| Materials for energy recovery | kg | 2,40E-01 | 0,00E+00 | 0,00E+00 | 8,06E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, electricity | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, thermal | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Information on biogenic carbon content

| Results per 1 m ² window. Wood fully reversible window 3-glass | | |
|---|------|----------|
| BIOTIC CARBON CONTENT | Unit | QUANTITY |
| Biogenic carbon content in product | kg C | 3,5 |
| Biogenic carbon content in packaging | kg C | 0,40 |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

4. Wood/aluminum fully reversible window 3-glass (SF 2010)

Content information

| Product components | Weight, kg | Post-consumer material, weight-% | Renewable material, weight-% |
|-----------------------|------------|----------------------------------|------------------------------|
| Glass | 22,88 | 0% | 0% |
| Edge sealing compound | 0,66 | 0% | 0% |
| Butyl | 0,02 | 0% | 0% |
| Desiccant | 0,16 | 0% | 0% |
| Aluminium | 2,57 | 2% | 0% |
| Argon | 0,04 | 0% | 0% |
| Wood | 7,59 | 0% | 0% |
| Plastic | 0,14 | 0% | 0% |
| Steel | 2,75 | 55% | 0% |
| Rubber EPDM | 0,36 | 0% | 0% |
| Glue | 0,07 | 0% | 0% |
| Sealant | 0,04 | 0% | 0% |
| Paint | 0,37 | 0% | 0% |
| TOTAL | 37,64 | 4% | 0% |
| Packaging materials | Weight, kg | Weight-% (versus the product) | |
| Plastic | 0,085 | 0,2% | |
| Carton | 0,3 | 0,8% | |
| Plywood | 0,54 | 1,4% | |
| TOTAL | 0,9 | 2,5% | |

The declared products do not contain any dangerous substances according to the candidate list of substances of very high concern for authorisation by the European Chemicals Agency.

Environmental information

Potential environmental impact – mandatory indicators according to EN 15804

| Results per 1 m ² window. Wood/aluminum fully reversable window 3-glass | | | | | | | |
|--|--|-----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-fossil | kg CO ₂ eq. | 8,12E+01 | 0,00E+00 | 4,43E-01 | 1,90E-01 | 9,71E-02 | -2,20E+01 |
| GWP-biogenic | kg CO ₂ eq. | -7,84E+00 | 0,00E+00 | 1,02E-01 | 1,05E+01 | 8,51E-04 | -7,92E-01 |
| GWP-luluc | kg CO ₂ eq. | 5,07E-01 | 0,00E+00 | 2,15E-04 | 1,30E-04 | 2,18E-05 | -4,50E-01 |
| GWP-total | kg CO ₂ eq. | 7,39E+01 | 0,00E+00 | 5,45E-01 | 1,07E+01 | 9,80E-02 | -2,32E+01 |
| ODP | kg CFC 11 eq. | 8,00E+04 | 0,00E+00 | 9,92E-08 | 2,04E-08 | 4,81E-08 | -1,98E-06 |
| AP | mol H ⁺ eq. | 6,40E-01 | 0,00E+00 | 1,35E-03 | 1,03E-03 | 9,53E-04 | -1,31E-01 |
| EP-freshwater | kg P eq. | 2,92E-02 | 0,00E+00 | 3,48E-05 | 5,39E-05 | 5,53E-06 | -1,15E-02 |
| EP-marine | kg N eq. | 8,33E-02 | 0,00E+00 | 2,92E-04 | 4,61E-04 | 3,60E-04 | -2,11E-02 |
| EP-terrestrial | mol N eq. | 8,98E-01 | 0,00E+00 | 3,18E-03 | 3,39E-03 | 3,95E-03 | -1,83E-01 |
| POCP | kg NMVOC eq. | 2,87E-01 | 0,00E+00 | 1,21E-03 | 9,53E-04 | 1,13E-03 | -7,56E-02 |
| ADP-minerals&metals* | kg Sb eq. | 1,67E-03 | 0,00E+00 | 1,93E-06 | 4,08E-06 | 1,90E-07 | -3,75E-05 |
| ADP-fossil* | MJ | 1,11E+03 | 0,00E+00 | 6,63E+00 | 1,90E+00 | 3,14E+00 | -3,40E+02 |
| WDP | m ³ | 2,32E+01 | 0,00E+00 | 2,43E-02 | 2,13E-02 | 9,72E-03 | -1,87E+00 |
| Acronyms | <p>GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption</p> | | | | | | |

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

Potential environmental impact – additional mandatory and voluntary indicators

| Results per 1 m ² window. Wood/aluminum fully reversable window 3-glass | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-GHG ⁴ | kg CO ₂ eq. | 8,08E+01 | 0,00E+00 | 4,39E-01 | 2,66E-01 | 9,58E-02 | -2,18E+01 |
| Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017 | | | | | | | |

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

Use of resources

| Results per 1 m ² window. Wood fully reversible window 3-glass | | | | | | | |
|---|---|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| PERE | MJ | 2,16E+02 | 0,00E+00 | 1,14E-01 | 1,66E-01 | 6,40E-02 | -1,25E+02 |
| PERM | MJ | 1,28E+02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,47E-01 |
| PERT | MJ | 3,45E+02 | 0,00E+00 | 1,14E-01 | 1,66E-01 | 6,40E-02 | -1,24E+02 |
| PENRE | MJ | 1,18E+03 | 0,00E+00 | 7,04E+00 | 2,02E+00 | 3,34E+00 | -3,59E+02 |
| PENRM | MJ. | 4,73E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| PENRT | MJ | 1,18E+03 | 0,00E+00 | 7,04E+00 | 2,02E+00 | 3,34E+00 | -4,08E+01 |
| SM | kg | 1,56E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| RSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| NRSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| FW | m ³ | 1,00E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Acronyms | <p>PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water</p> | | | | | | |

Waste production and output flows

Waste production

| Results per 1 m ² window. Wood/aluminum fully reversable window 3-glass | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Hazardous waste disposed | kg | 7,23E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Non-hazardous waste disposed | kg | 1,02E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Radioactive waste disposed | kg | 4,02E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Output flows

| Results per 1 m ² window. Wood/aluminum fully reversable window 3-glass | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Components for re-use | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Material for recycling | kg | 1,80E-01 | 0,00E+00 | 0,00E+00 | 5,31E+00 | 0,00E+00 | 0,00E+00 |
| Materials for energy recovery | kg | 2,28E-01 | 0,00E+00 | 0,00E+00 | 7,73E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, electricity | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, thermal | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Information on biogenic carbon content

| Results per 1 m ² window. Wood/aluminum fully reversable window 3-glass | | |
|--|------|----------|
| BIOTIC CARBON CONTENT | Unit | QUANTITY |
| Biogenic carbon content in product | kg C | 3,3 |
| Biogenic carbon content in packaging | kg C | 0,40 |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

5. Wood fixed window 3-glass (SF 2010)

Content information

| Product components | Weight, kg | Post-consumer material, weight-% | Renewable material, weight-% |
|-----------------------|------------|----------------------------------|------------------------------|
| Glass | 26,28 | 0% | 0% |
| Edge sealing compound | 0,70 | 0% | 0% |
| Butyl | 0,02 | 0% | 0% |
| Desiccant | 0,17 | 0% | 0% |
| Aluminium | 0,94 | 2% | 0% |
| Argon | 0,05 | 0% | 0% |
| Wood | 5,58 | 0% | 0% |
| Plastic | 0,07 | 0% | 0% |
| Steel | 0,00 | 55% | 0% |
| Rubber EPDM | 0,22 | 0% | 0% |
| Glue | 0,04 | 0% | 0% |
| Sealant | 0,02 | 0% | 0% |
| Paint | 0,21 | 0% | 0% |
| TOTAL | 34,30 | 0% | 0% |
| Packaging materials | Weight, kg | Weight-% (versus the product) | |
| Plastic | 0,085 | 0,2% | |
| Carton | 0,3 | 0,9% | |
| Plywood | 0,54 | 1,6% | |
| TOTAL | 0,9 | 2,5% | |

The declared products do not contain any dangerous substances according to the candidate list of substances of very high concern for authorisation by the European Chemicals Agency.

Environmental Information

Potential environmental impact – mandatory indicators according to EN 15804

| Results per 1 m ² window. Wood fixed window 3-glass | | | | | | | |
|--|--|-----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-fossil | kg CO ₂ eq. | 5,46E+01 | 0,00E+00 | 2,95E-01 | 3,51E-02 | 1,12E-01 | -6,49E+00 |
| GWP-biogenic | kg CO ₂ eq. | -7,68E+00 | 0,00E+00 | 6,80E-02 | 8,66E+00 | 9,77E-04 | -5,24E-01 |
| GWP-luluc | kg CO ₂ eq. | 2,04E-01 | 0,00E+00 | 1,43E-04 | 1,87E-05 | 2,51E-05 | -1,35E-01 |
| GWP-total | kg CO ₂ eq. | 4,71E+01 | 0,00E+00 | 3,63E-01 | 8,69E+00 | 1,13E-01 | -7,15E+00 |
| ODP | kg CFC 11 eq. | 1,82E+05 | 0,00E+00 | 6,60E-08 | 4,73E-09 | 5,52E-08 | -5,35E-07 |
| AP | mol H ⁺ eq. | 5,02E-01 | 0,00E+00 | 8,98E-04 | 2,34E-04 | 1,09E-03 | -3,78E-02 |
| EP-freshwater | kg P eq. | 1,43E-02 | 0,00E+00 | 2,31E-05 | 7,67E-06 | 6,36E-06 | -3,10E-03 |
| EP-marine | kg N eq. | 5,83E-02 | 0,00E+00 | 1,94E-04 | 1,05E-04 | 4,13E-04 | -7,08E-03 |
| EP-terrestrial | mol N eq. | 6,63E-01 | 0,00E+00 | 2,11E-03 | 9,20E-04 | 4,54E-03 | -5,63E-02 |
| POCP | kg NMVOC eq. | 2,01E-01 | 0,00E+00 | 8,08E-04 | 2,56E-04 | 1,30E-03 | -2,35E-02 |
| ADP-minerals&metals* | kg Sb eq. | 1,04E-03 | 0,00E+00 | 1,28E-06 | 5,65E-07 | 2,18E-07 | -1,39E-05 |
| ADP-fossil* | MJ | 7,88E+02 | 0,00E+00 | 4,41E+00 | 3,85E-01 | 3,61E+00 | -1,09E+02 |
| WDP | m ³ | 1,57E+01 | 0,00E+00 | 1,61E-02 | 3,09E-03 | 1,12E-02 | -7,16E-01 |
| Acronyms | <p>GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption</p> | | | | | | |

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

Potential environmental impact – additional mandatory and voluntary indicators

| Results per 1 m ² window. Wood fixed window 3-glass | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-GHG ⁵ | kg CO ₂ eq. | 5,44E+01 | 0,00E+00 | 2,92E-01 | 4,54E-02 | 1,10E-01 | -6,47E+00 |
| Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017 | | | | | | | |

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

Use of resources

| Results per 1 m ² window. Wood fixed window 3-glass | | | | | | | |
|--|---|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| PERE | MJ | 9,77E+01 | 0,00E+00 | 7,62E-02 | 2,34E-02 | 7,35E-02 | -4,03E+01 |
| PERM | MJ | 9,43E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,47E-01 |
| PERT | MJ | 1,92E+02 | 0,00E+00 | 7,62E-02 | 2,34E-02 | 7,35E-02 | -3,98E+01 |
| PENRE | MJ | 8,34E+02 | 0,00E+00 | 4,68E+00 | 4,08E-01 | 3,83E+00 | -1,14E+02 |
| PENRM | MJ. | 2,16E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| PENRT | MJ | 8,36E+02 | 0,00E+00 | 4,68E+00 | 4,08E-01 | 3,83E+00 | -2,06E+01 |
| SM | kg | 1,89E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| RSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| NRSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| FW | m ³ | 1,00E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Acronyms | <p>PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water</p> | | | | | | |

Waste production and output flows

Waste production

| Results per 1 m ² window. Wood fixed window 3-glass | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Hazardous waste disposed | kg | 1,74E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Non-hazardous waste disposed | kg | 1,25E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Radioactive waste disposed | kg | 5,78E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Output flows

| Results per 1 m ² window. Wood fixed window 3-glass | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Components for re-use | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Material for recycling | kg | 6,60E-02 | 0,00E+00 | 0,00E+00 | 9,43E-01 | 0,00E+00 | 0,00E+00 |
| Materials for energy recovery | kg | 1,67E-01 | 0,00E+00 | 0,00E+00 | 5,65E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, electricity | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, thermal | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Information on biogenic carbon content

| Results per 1 m ² window. Wood fixed window 3-glass | | |
|--|------|----------|
| BIOTIC CARBON CONTENT | Unit | QUANTITY |
| Biogenic carbon content in product | kg C | 2,5 |
| Biogenic carbon content in packaging | kg C | 0,40 |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

6. Wood/aluminum fixed window 3-glass (SF 2010)

Content information

| Product components | Weight, kg | Post-consumer material, weight-% | Renewable material, weight-% |
|-----------------------|------------|----------------------------------|------------------------------|
| Glass | 26,28 | 0% | 0% |
| Edge sealing compound | 0,70 | 0% | 0% |
| Butyl | 0,02 | 0% | 0% |
| Desiccant | 0,17 | 0% | 0% |
| Aluminium | 1,44 | 2% | 0% |
| Argon | 0,05 | 0% | 0% |
| Wood | 5,58 | 0% | 0% |
| Plastic | 0,07 | 0% | 0% |
| Steel | 0,00 | 55% | 0% |
| Rubber EPDM | 0,22 | 0% | 0% |
| Glue | 0,04 | 0% | 0% |
| Sealant | 0,02 | 0% | 0% |
| Paint | 0,21 | 0% | 0% |
| TOTAL | 34,80 | 0% | 0% |
| Packaging materials | Weight, kg | Weight-% (versus the product) | |
| Plastic | 0,085 | 0,2% | |
| Carton | 0,3 | 0,9% | |
| Plywood | 0,54 | 1,6% | |
| TOTAL | 0,9 | 2,7% | |

The declared products do not contain any dangerous substances according to the candidate list of substances of very high concern for authorisation by the European Chemicals Agency.

Environmental information

Potential environmental impact – mandatory indicators according to EN 15804

| Results per 1 m ² window. Wood/aluminum fixed window 3-glass | | | | | | | |
|---|--|-----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-fossil | kg CO ₂ eq. | 6,01E+01 | 0,00E+00 | 2,97E-01 | 5,11E-02 | 1,12E-01 | -9,83E+00 |
| GWP-biogenic | kg CO ₂ eq. | -7,65E+00 | 0,00E+00 | 6,86E-02 | 8,64E+00 | 9,77E-04 | -5,50E-01 |
| GWP-luluc | kg CO ₂ eq. | 2,90E-01 | 0,00E+00 | 1,44E-04 | 3,05E-05 | 2,51E-05 | -2,15E-01 |
| GWP-total | kg CO ₂ eq. | 5,28E+01 | 0,00E+00 | 3,65E-01 | 8,69E+00 | 1,13E-01 | -1,06E+01 |
| ODP | kg CFC 11 eq. | 1,82E+05 | 0,00E+00 | 6,65E-08 | 6,30E-09 | 5,52E-08 | -8,89E-07 |
| AP | mol H ⁺ eq. | 4,18E-01 | 0,00E+00 | 9,04E-04 | 3,14E-04 | 1,09E-03 | -5,97E-02 |
| EP-freshwater | kg P eq. | 8,01E-02 | 0,00E+00 | 7,17E-05 | 3,86E-05 | 1,95E-05 | -1,55E-02 |
| EP-marine | kg N eq. | 2,61E-02 | 0,00E+00 | 2,33E-05 | 1,26E-05 | 6,36E-06 | -5,05E-03 |
| EP-terrestrial | mol N eq. | 6,14E-02 | 0,00E+00 | 1,95E-04 | 1,40E-04 | 4,13E-04 | -1,00E-02 |
| POCP | kg NMVOC eq. | 6,92E-01 | 0,00E+00 | 2,13E-03 | 1,16E-03 | 4,54E-03 | -8,32E-02 |
| ADP-minerals&metals* | kg Sb eq. | 1,39E-01 | 0,00E+00 | 8,14E-04 | 3,24E-04 | 1,30E-03 | -3,36E-02 |
| ADP-fossil* | MJ | 8,21E-04 | 0,00E+00 | 1,29E-06 | 9,37E-07 | 2,18E-07 | -2,01E-05 |
| WDP | m ³ | 8,97E+02 | 0,00E+00 | 4,45E+00 | 5,40E-01 | 3,61E+00 | -1,61E+02 |
| Acronyms | <p>GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption</p> | | | | | | |

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

Potential environmental impact – additional mandatory and voluntary indicators

| Results per 1 m ² window. Wood/aluminum fixed window 3-glass | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-GHG ⁶ | kg CO ₂ eq. | 5,78E+01 | 0,00E+00 | 2,94E-01 | 6,83E-02 | 1,10E-01 | -9,80E+00 |
| Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017 | | | | | | | |

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

Use of resources

| Results per 1 m ² window. Wood/aluminum fixed window 3-glass | | | | | | | |
|---|---|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| PERE | MJ | 1,20E+02 | 0,00E+00 | 7,67E-02 | 3,85E-02 | 7,35E-02 | -6,13E+01 |
| PERM | MJ | 9,43E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,47E-01 |
| PERT | MJ | 2,14E+02 | 0,00E+00 | 7,67E-02 | 3,85E-02 | 7,35E-02 | -6,08E+01 |
| PENRE | MJ | 8,89E+02 | 0,00E+00 | 4,72E+00 | 5,72E-01 | 3,83E+00 | -1,69E+02 |
| PENRM | MJ. | 2,16E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| PENRT | MJ | 8,91E+02 | 0,00E+00 | 4,72E+00 | 5,72E-01 | 3,83E+00 | -3,05E+01 |
| SM | kg | 2,87E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| RSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| NRSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| FW | m ³ | 1,00E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Acronyms | <p>PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water</p> | | | | | | |

Waste production and output flows

Waste production

| Results per 1 m ² window. Wood/aluminum fixed window 3-glass | | | | | | | |
|---|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Hazardous waste disposed | kg | 1,74E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Non-hazardous waste disposed | kg | 1,25E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Radioactive waste disposed | kg | 5,78E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Output flows

| Results per 1 m ² window. Wood/aluminum fixed window 3-glass | | | | | | | |
|---|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Components for re-use | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Material for recycling | kg | 1,01E-01 | 0,00E+00 | 0,00E+00 | 1,44E+00 | 0,00E+00 | 0,00E+00 |
| Materials for energy recovery | kg | 1,67E-01 | 0,00E+00 | 0,00E+00 | 5,65E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, electricity | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, thermal | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Information on biogenic carbon content

| Results per 1 m ² window. Wood/aluminum fixed window 3-glass | | |
|---|------|----------|
| BIOTIC CARBON CONTENT | Unit | QUANTITY |
| Biogenic carbon content in product | kg C | 2,5 |
| Biogenic carbon content in packaging | kg C | 0,40 |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

7. Wood/aluminum inward window 3-glass

Content information

| Product components | Weight, kg | Post-consumer material, weight-% | Renewable material, weight-% |
|-----------------------|------------|----------------------------------|------------------------------|
| Glass | 21,88 | 0% | 0% |
| Edge sealing compound | 0,64 | 0% | 0% |
| Butyl | 0,02 | 0% | 0% |
| Desiccant | 0,15 | 0% | 0% |
| Aluminium | 2,81 | 2% | 0% |
| Argon | 0,04 | 0% | 0% |
| Wood | 11,30 | 0% | 0% |
| Plastic | 0,14 | 0% | 0% |
| Steel | 0,63 | 55% | 0% |
| Rubber EPDM | 0,56 | 0% | 0% |
| Glue | 0,07 | 0% | 0% |
| Sealant | 0,03 | 0% | 0% |
| Paint | 0,40 | 0% | 0% |
| TOTAL | 38,68 | 1% | 0% |
| Packaging materials | Weight, kg | Weight-% (versus the product) | |
| Plastic | 0,085 | 0,2% | |
| Carton | 0,3 | 0,8% | |
| Plywood | 0,54 | 1,4% | |
| TOTAL | 0,9 | 2,4% | |

The declared products do not contain any dangerous substances according to the candidate list of substances of very high concern for authorisation by the European Chemicals Agency.

Environmental information

Potential environmental impact – mandatory indicators according to EN 15804

| Results per 1 m ² window. Wood/aluminum inward window 3-glass | | | | | | | |
|--|--|-----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-fossil | kg CO ₂ eq. | 7,07E+01 | 0,00E+00 | 3,79E-01 | 1,25E-01 | 6,39E-02 | -2,07E+01 |
| GWP-biogenic | kg CO ₂ eq. | -1,66E+01 | 0,00E+00 | 8,75E-02 | 1,75E+01 | 5,59E-04 | -1,12E+00 |
| GWP-luluc | kg CO ₂ eq. | 5,36E-01 | 0,00E+00 | 1,84E-04 | 7,74E-05 | 1,44E-05 | -4,43E-01 |
| GWP-total | kg CO ₂ eq. | 5,47E+01 | 0,00E+00 | 4,66E-01 | 1,76E+01 | 6,44E-02 | -2,23E+01 |
| ODP | kg CFC 11 eq. | 2,89E+05 | 0,00E+00 | 8,48E-08 | 1,48E-08 | 3,16E-08 | -1,85E-06 |
| AP | mol H ⁺ eq. | 6,00E-01 | 0,00E+00 | 1,15E-03 | 7,41E-04 | 6,27E-04 | -1,25E-01 |
| EP-freshwater | kg P eq. | 2,63E-02 | 0,00E+00 | 2,97E-05 | 3,19E-05 | 3,64E-06 | -1,06E-02 |
| EP-marine | kg N eq. | 7,18E-02 | 0,00E+00 | 2,49E-04 | 3,32E-04 | 2,37E-04 | -2,10E-02 |
| EP-terrestrial | mol N eq. | 7,79E-01 | 0,00E+00 | 2,72E-03 | 2,67E-03 | 2,60E-03 | -1,75E-01 |
| POCP | kg NMVOC eq. | 2,53E-01 | 0,00E+00 | 1,04E-03 | 7,46E-04 | 7,43E-04 | -7,13E-02 |
| ADP-minerals&metals* | kg Sb eq. | 1,54E-03 | 0,00E+00 | 1,65E-06 | 2,39E-06 | 1,25E-07 | -4,09E-05 |
| ADP-fossil* | MJ | 1,05E+03 | 0,00E+00 | 5,67E+00 | 1,30E+00 | 2,07E+00 | -3,35E+02 |
| WDP | m ³ | 1,91E+01 | 0,00E+00 | 2,08E-02 | 1,27E-02 | 6,40E-03 | -1,98E+00 |
| Acronyms | <p>GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption</p> | | | | | | |

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

Potential environmental impact – additional mandatory and voluntary indicators

| Results per 1 m ² window. Wood/aluminum inward window 3-glass | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-GHG ⁷ | kg CO ₂ eq. | 7,04E+01 | 0,00E+00 | 3,76E-01 | 1,69E-01 | 6,30E-02 | -2,06E+01 |
| Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017 | | | | | | | |

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

Use of resources

| Results per 1 m ² window. Wood/aluminum inward window 3-glass | | | | | | | |
|--|---|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| PERE | MJ | 1,98E+02 | 0,00E+00 | 9,79E-02 | 9,80E-02 | 4,21E-02 | -1,26E+02 |
| PERM | MJ | 1,91E+02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,47E-01 |
| PERT | MJ | 3,89E+02 | 0,00E+00 | 9,79E-02 | 9,80E-02 | 4,21E-02 | -1,26E+02 |
| PENRE | MJ | 1,11E+03 | 0,00E+00 | 6,02E+00 | 1,38E+00 | 2,20E+00 | -3,53E+02 |
| PENRM | MJ. | 4,73E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| PENRT | MJ | 1,11E+03 | 0,00E+00 | 6,02E+00 | 1,38E+00 | 2,20E+00 | -2,55E+01 |
| SM | kg | 4,04E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| RSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| NRSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| FW | m ³ | 1,00E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Acronyms | <p>PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water</p> | | | | | | |

Waste production and output flows

Waste production

| Results per 1 m ² window. Wood/aluminum inward window 3-glass | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Hazardous waste disposed | kg | 1,00E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Non-hazardous waste disposed | kg | 1,26E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Radioactive waste disposed | kg | 4,95E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Output flows

| Results per 1 m ² window. Wood/aluminum inward window 3-glass | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Components for re-use | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Material for recycling | kg | 1,97E-01 | 0,00E+00 | 0,00E+00 | 3,45E+00 | 0,00E+00 | 0,00E+00 |
| Materials for energy recovery | kg | 3,39E-01 | 0,00E+00 | 0,00E+00 | 1,14E+01 | 0,00E+00 | 0,00E+00 |
| Exported energy, electricity | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, thermal | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Information on biogenic carbon content

| Results per 1 m ² window. Wood/aluminum inward window 3-glass | | |
|--|------|----------|
| BIOTIC CARBON CONTENT | Unit | QUANTITY |
| Biogenic carbon content in product | kg C | 5,0 |
| Biogenic carbon content in packaging | kg C | 0,40 |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

8. Wood/aluminum inward window 2+1 -glass

Content information

| Product components | Weight, kg | Post-consumer material, weight-% | Renewable material, weight-% |
|-----------------------|------------|----------------------------------|------------------------------|
| Glass | 22,65 | 0% | 0% |
| Edge sealing compound | 0,33 | 0% | 0% |
| Butyl | 0,01 | 0% | 0% |
| Desiccant | 0,08 | 0% | 0% |
| Aluminium | 3,17 | 2% | 0% |
| Argon | 0,02 | 0% | 0% |
| Wood | 9,31 | 0% | 0% |
| Plastic | 0,07 | 0% | 0% |
| Steel | 0,73 | 55% | 0% |
| Rubber EPDM | 0,65 | 0% | 0% |
| Glue | 0,07 | 0% | 0% |
| Sealant | 0,04 | 0% | 0% |
| Paint | 0,37 | 0% | 0% |
| TOTAL | 37,48 | 1% | 0% |
| Packaging materials | Weight, kg | Weight-% (versus the product) | |
| Plastic | 0,085 | 0,2% | |
| Carton | 0,3 | 0,8% | |
| Plywood | 0,54 | 1,4% | |
| TOTAL | 0,9 | 2,5% | |

The declared products do not contain any dangerous substances according to the candidate list of substances of very high concern for authorisation by the European Chemicals Agency.

Environmental information

Potential environmental impact – mandatory indicators according to EN 15804

| Results per 1 m ² window. Wood/aluminum inward window 2+1 -glass | | | | | | | |
|---|--|-----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-fossil | kg CO ₂ eq. | 7,53E+01 | 0,00E+00 | 3,84E-01 | 1,38E-01 | 9,59E-02 | -2,33E+01 |
| GWP-biogenic | kg CO ₂ eq. | -1,34E+01 | 0,00E+00 | 8,87E-02 | 1,43E+01 | 8,40E-04 | -9,67E-01 |
| GWP-luluc | kg CO ₂ eq. | 6,00E-01 | 0,00E+00 | 1,86E-04 | 9,00E-05 | 2,16E-05 | -5,10E-01 |
| GWP-total | kg CO ₂ eq. | 6,26E+01 | 0,00E+00 | 4,73E-01 | 1,45E+01 | 9,68E-02 | -2,48E+01 |
| ODP | kg CFC 11 eq. | 2,51E+05 | 0,00E+00 | 8,60E-08 | 1,57E-08 | 4,75E-08 | -2,17E-06 |
| AP | mol H ⁺ eq. | 1,04E+01 | 0,00E+00 | 1,17E-03 | 7,88E-04 | 9,41E-04 | -1,43E-01 |
| EP-freshwater | kg P eq. | 2,92E-02 | 0,00E+00 | 3,02E-05 | 3,72E-05 | 5,47E-06 | -1,23E-02 |
| EP-marine | kg N eq. | 9,48E-02 | 0,00E+00 | 2,53E-04 | 3,53E-04 | 3,55E-04 | -2,27E-02 |
| EP-terrestrial | mol N eq. | 1,04E+00 | 0,00E+00 | 2,75E-03 | 2,73E-03 | 3,90E-03 | -1,94E-01 |
| POCP | kg NMVOC eq. | 7,05E-01 | 0,00E+00 | 1,05E-03 | 7,66E-04 | 1,12E-03 | -7,78E-02 |
| ADP-minerals&metals* | kg Sb eq. | 1,45E-03 | 0,00E+00 | 1,67E-06 | 2,80E-06 | 1,87E-07 | -4,49E-05 |
| ADP-fossil* | MJ | 1,08E+03 | 0,00E+00 | 5,75E+00 | 1,42E+00 | 3,10E+00 | -3,72E+02 |
| WDP | m ³ | 2,09E+01 | 0,00E+00 | 2,10E-02 | 1,47E-02 | 9,60E-03 | -2,08E+00 |
| Acronyms | <p>GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption</p> | | | | | | |

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

Potential environmental impact – additional mandatory and voluntary indicators

| Results per 1 m ² window. Wood/aluminum inward window 2+1 -glass | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-GHG ⁸ | kg CO ₂ eq. | 7,50E+01 | 0,00E+00 | 3,81E-01 | 1,90E-01 | 9,47E-02 | -2,32E+01 |
| Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017 | | | | | | | |

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

Use of resources

| Results per 1 m ² window. Wood/aluminum inward window 2+1 -glass | | | | | | | |
|---|---|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| PERE | MJ | 2,16E+02 | 0,00E+00 | 9,92E-02 | 1,14E-01 | 6,32E-02 | -1,42E+02 |
| PERM | MJ | 1,57E+02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,47E-01 |
| PERT | MJ | 3,73E+02 | 0,00E+00 | 9,92E-02 | 1,14E-01 | 6,32E-02 | -1,42E+02 |
| PENRE | MJ | 1,14E+03 | 0,00E+00 | 6,11E+00 | 1,50E+00 | 3,30E+00 | -3,92E+02 |
| PENRM | MJ. | 2,20E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| PENRT | MJ | 1,15E+03 | 0,00E+00 | 6,11E+00 | 1,50E+00 | 3,30E+00 | -2,50E+01 |
| SM | kg | 4,65E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| RSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| NRSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| FW | m ³ | 1,00E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Acronyms | <p>PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water</p> | | | | | | |

Waste production and output flows

Waste production

| Results per 1 m ² window. Wood/aluminum inward window 2+1 -glass | | | | | | | |
|---|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Hazardous waste disposed | kg | 9,97E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Non-hazardous waste disposed | kg | 9,46E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Radioactive waste disposed | kg | 3,67E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Output flows

| Results per 1 m ² window. Wood/aluminum inward window 2+1 -glass | | | | | | | |
|---|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Components for re-use | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Material for recycling | kg | 2,22E-01 | 0,00E+00 | 0,00E+00 | 3,90E+00 | 0,00E+00 | 0,00E+00 |
| Materials for energy recovery | kg | 2,79E-01 | 0,00E+00 | 0,00E+00 | 9,38E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, electricity | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, thermal | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Information on biogenic carbon content

| Results per 1 m ² window. Wood/aluminum inward window 2+1 -glass | | |
|---|------|----------|
| BIOTIC CARBON CONTENT | Unit | QUANTITY |
| Biogenic carbon content in product | kg C | 4,1 |
| Biogenic carbon content in packaging | kg C | 0,40 |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

9. Wood/aluminum inward window 3+1-glass

Content information

| Product components | Weight, kg | Post-consumer material, weight-% | Renewable material, weight-% |
|-----------------------|------------|----------------------------------|------------------------------|
| Glass | 30,20 | 0% | 0% |
| Edge sealing compound | 0,65 | 0% | 0% |
| Butyl | 0,02 | 0% | 0% |
| Desiccant | 0,16 | 0% | 0% |
| Aluminium | 3,27 | 2% | 0% |
| Argon | 0,04 | 0% | 0% |
| Wood | 9,31 | 0% | 0% |
| Plastic | 0,07 | 0% | 0% |
| Steel | 0,73 | 55% | 0% |
| Rubber EPDM | 0,65 | 0% | 0% |
| Glue | 0,07 | 0% | 0% |
| Sealant | 0,04 | 0% | 0% |
| Paint | 0,37 | 0% | 0% |
| TOTAL | 45,57 | 1% | 0% |
| Packaging materials | Weight, kg | Weight-% (versus the product) | |
| Plastic | 0,085 | 0,2% | |
| Carton | 0,3 | 0,7% | |
| Plywood | 0,54 | 1,2% | |
| TOTAL | 0,9 | 2,0% | |

The declared products do not contain any dangerous substances according to the candidate list of substances of very high concern for authorisation by the European Chemicals Agency.

Environmental information

Potential environmental impact – mandatory indicators according to EN 15804

| Results per 1 m ² window. Wood/aluminum inward window 3+1 -glass | | | | | | | |
|---|--|-----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-fossil | kg CO ₂ eq. | 8,64E+01 | 0,00E+00 | 4,44E-01 | 1,39E-01 | 9,59E-02 | -2,33E+01 |
| GWP-biogenic | kg CO ₂ eq. | -1,31E+01 | 0,00E+00 | 1,03E-01 | 1,43E+01 | 8,40E-04 | -9,68E-01 |
| GWP-luluc | kg CO ₂ eq. | 6,24E-01 | 0,00E+00 | 2,15E-04 | 9,02E-05 | 2,16E-05 | -5,12E-01 |
| GWP-total | kg CO ₂ eq. | 7,39E+01 | 0,00E+00 | 5,47E-01 | 1,45E+01 | 9,68E-02 | -2,48E+01 |
| ODP | kg CFC 11 eq. | 2,51E+05 | 0,00E+00 | 9,94E-08 | 1,58E-08 | 4,75E-08 | -2,18E-06 |
| AP | mol H ⁺ eq. | 7,36E-01 | 0,00E+00 | 1,35E-03 | 7,90E-04 | 9,41E-04 | -1,44E-01 |
| EP-freshwater | kg P eq. | 3,07E-02 | 0,00E+00 | 3,49E-05 | 3,73E-05 | 5,47E-06 | -1,24E-02 |
| EP-marine | kg N eq. | 9,32E-02 | 0,00E+00 | 2,92E-04 | 3,54E-04 | 3,55E-04 | -2,28E-02 |
| EP-terrestrial | mol N eq. | 1,02E+00 | 0,00E+00 | 3,19E-03 | 2,74E-03 | 3,90E-03 | -1,95E-01 |
| POCP | kg NMVOC eq. | 3,18E-01 | 0,00E+00 | 1,22E-03 | 7,67E-04 | 1,12E-03 | -7,80E-02 |
| ADP-minerals&metals* | kg Sb eq. | 1,73E-03 | 0,00E+00 | 1,93E-06 | 2,81E-06 | 1,87E-07 | -4,50E-05 |
| ADP-fossil* | MJ | 1,26E+03 | 0,00E+00 | 6,65E+00 | 1,42E+00 | 3,10E+00 | -3,73E+02 |
| WDP | m ³ | 2,27E+01 | 0,00E+00 | 2,43E-02 | 1,48E-02 | 9,60E-03 | -2,08E+00 |
| Acronyms | <p>GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption</p> | | | | | | |

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

Potential environmental impact – additional mandatory and voluntary indicators

| Results per 1 m ² window. Wood/aluminum inward window 3+1 -glass | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-GHG ⁹ | kg CO ₂ eq. | 8,60E+01 | 0,00E+00 | 4,40E-01 | 1,91E-01 | 9,47E-02 | -2,32E+01 |
| Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017 | | | | | | | |

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

Use of resources

| Results per 1 m ² window. Wood/aluminum inward window 3+1 -glass | | | | | | | |
|---|---|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| PERE | MJ | 2,27E+02 | 0,00E+00 | 1,15E-01 | 1,15E-01 | 6,32E-02 | -1,43E+02 |
| PERM | MJ | 1,57E+02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,47E-01 |
| PERT | MJ | 3,84E+02 | 0,00E+00 | 1,15E-01 | 1,15E-01 | 6,32E-02 | -1,42E+02 |
| PENRE | MJ | 1,34E+03 | 0,00E+00 | 7,06E+00 | 1,50E+00 | 3,30E+00 | -3,93E+02 |
| PENRM | MJ. | 2,20E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| PENRT | MJ | 1,34E+03 | 0,00E+00 | 7,06E+00 | 1,50E+00 | 3,30E+00 | -2,50E+01 |
| SM | kg | 4,67E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| RSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| NRSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| FW | m ³ | 1,00E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Acronyms | <p>PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water</p> | | | | | | |

Waste production and output flows

Waste production

| Results per 1 m ² window. Wood/aluminum inward window 3+1 -glass | | | | | | | |
|---|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Hazardous waste disposed | kg | 1,00E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Non-hazardous waste disposed | kg | 1,30E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Radioactive waste disposed | kg | 5,08E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Output flows

| Results per 1 m ² window. Wood/aluminum inward window 3+1 -glass | | | | | | | |
|---|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Components for re-use | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Material for recycling | kg | 2,29E-01 | 0,00E+00 | 0,00E+00 | 4,00E+00 | 0,00E+00 | 0,00E+00 |
| Materials for energy recovery | kg | 2,79E-01 | 0,00E+00 | 0,00E+00 | 9,38E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, electricity | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, thermal | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Information on biogenic carbon content

| Results per 1 m ² window. Wood/aluminum inward window 3+1 -glass | | |
|---|------|----------|
| BIOTIC CARBON CONTENT | Unit | QUANTITY |
| Biogenic carbon content in product | kg C | 4,1 |
| Biogenic carbon content in packaging | kg C | 0,40 |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

10. Wood/aluminum inward Kipp-dreh window 3-glass

Content information

| Product components | Weight, kg | Post-consumer material, weight-% | Renewable material, weight-% |
|-----------------------|------------|----------------------------------|------------------------------|
| Glass | 21,88 | 0% | 0% |
| Edge sealing compound | 0,64 | 0% | 0% |
| Butyl | 0,02 | 0% | 0% |
| Desiccant | 0,15 | 0% | 0% |
| Aluminium | 2,81 | 2% | 0% |
| Argon | 0,04 | 0% | 0% |
| Wood | 11,30 | 0% | 0% |
| Plastic | 0,14 | 0% | 0% |
| Steel | 1,11 | 55% | 0% |
| Rubber EPDM | 0,56 | 0% | 0% |
| Glue | 0,40 | 0% | 0% |
| Sealant | 0,03 | 0% | 0% |
| Paint | 0,40 | 0% | 0% |
| TOTAL | 39,49 | 2% | 0% |
| Packaging materials | Weight, kg | Weight-% (versus the product) | |
| Plastic | 0,085 | 0,2% | |
| Carton | 0,3 | 0,8% | |
| Plywood | 0,54 | 1,4% | |
| TOTAL | 0,9 | 2,3% | |

The declared products do not contain any dangerous substances according to the candidate list of substances of very high concern for authorisation by the European Chemicals Agency.

Environmental information

Potential environmental impact – mandatory indicators according to EN 15804

| Results per 1 m ² window. Wood/aluminum inward Kipp-dreh window 3-glass | | | | | | | |
|--|--|-----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-fossil | kg CO ₂ eq. | 7,40E+01 | 0,00E+00 | 3,95E-01 | 1,40E-01 | 6,39E-02 | -2,11E+01 |
| GWP-biogenic | kg CO ₂ eq. | -1,64E+01 | 0,00E+00 | 9,11E-02 | 1,75E+01 | 5,59E-04 | -1,11E+00 |
| GWP-luluc | kg CO ₂ eq. | 5,35E-01 | 0,00E+00 | 1,91E-04 | 8,89E-05 | 1,44E-05 | -4,43E-01 |
| GWP-total | kg CO ₂ eq. | 5,82E+01 | 0,00E+00 | 4,86E-01 | 1,76E+01 | 6,44E-02 | -2,26E+01 |
| ODP | kg CFC 11 eq. | 2,89E+05 | 0,00E+00 | 8,84E-08 | 1,64E-08 | 3,16E-08 | -1,87E-06 |
| AP | mol H ⁺ eq. | 6,20E-01 | 0,00E+00 | 1,20E-03 | 8,19E-04 | 6,27E-04 | -1,26E-01 |
| EP-freshwater | kg P eq. | 2,76E-02 | 0,00E+00 | 3,10E-05 | 3,67E-05 | 3,64E-06 | -1,07E-02 |
| EP-marine | kg N eq. | 7,54E-02 | 0,00E+00 | 2,60E-04 | 3,67E-04 | 2,37E-04 | -2,13E-02 |
| EP-terrestrial | mol N eq. | 8,16E-01 | 0,00E+00 | 2,83E-03 | 2,90E-03 | 2,60E-03 | -1,78E-01 |
| POCP | kg NMVOC eq. | 2,64E-01 | 0,00E+00 | 1,08E-03 | 8,12E-04 | 7,43E-04 | -7,31E-02 |
| ADP-minerals&metals* | kg Sb eq. | 1,62E-03 | 0,00E+00 | 1,72E-06 | 2,76E-06 | 1,25E-07 | -4,05E-05 |
| ADP-fossil* | MJ | 1,09E+03 | 0,00E+00 | 5,91E+00 | 1,45E+00 | 2,07E+00 | -3,39E+02 |
| WDP | m ³ | 2,03E+01 | 0,00E+00 | 2,16E-02 | 1,46E-02 | 6,40E-03 | -2,00E+00 |
| Acronyms | <p>GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption</p> | | | | | | |

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

Potential environmental impact – additional mandatory and voluntary indicators

| Results per 1 m ² window. Wood/aluminum inward Kipp-dreh window 3-glass | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-GHG ¹⁰ | kg CO ₂ eq. | 7,37E+01 | 0,00E+00 | 3,91E-01 | 1,91E-01 | 6,30E-02 | -2,10E+01 |
| Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017 | | | | | | | |

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

Use of resources

| Results per 1 m ² window. Wood/aluminum inward Kipp-dreh window 3-glass | | | | | | | |
|--|---|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| PERE | MJ | 2,07E+02 | 0,00E+00 | 1,02E-01 | 1,13E-01 | 4,21E-02 | -1,26E+02 |
| PERM | MJ | 1,40E+02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,47E-01 |
| PERT | MJ | 3,47E+02 | 0,00E+00 | 1,02E-01 | 1,13E-01 | 4,21E-02 | -1,26E+02 |
| PENRE | MJ | 1,15E+03 | 0,00E+00 | 6,27E+00 | 1,54E+00 | 2,20E+00 | -3,56E+02 |
| PENRM | MJ. | 2,16E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| PENRT | MJ | 1,15E+03 | 0,00E+00 | 6,27E+00 | 1,54E+00 | 2,20E+00 | -2,58E+01 |
| SM | kg | 9,14E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| RSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| NRSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| FW | m ³ | 1,00E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Acronyms | <p>PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water</p> | | | | | | |

Waste production and output flows

Waste production

| Results per 1 m ² window. Wood/aluminum inward Kipp-dreh window 3-glass | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Hazardous waste disposed | kg | 1,00E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Non-hazardous waste disposed | kg | 1,26E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Radioactive waste disposed | kg | 4,95E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Output flows

| Results per 1 m ² window. Wood/aluminum inward Kipp-dreh window 3-glass | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Components for re-use | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Material for recycling | kg | 1,97E-01 | 0,00E+00 | 0,00E+00 | 3,93E+00 | 0,00E+00 | 0,00E+00 |
| Materials for energy recovery | kg | 3,39E-01 | 0,00E+00 | 0,00E+00 | 1,14E+01 | 0,00E+00 | 0,00E+00 |
| Exported energy, electricity | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, thermal | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Information on biogenic carbon content

| Results per 1 m ² window. Wood/aluminum inward Kipp-dreh window 3-glass | | |
|--|------|----------|
| BIOTIC CARBON CONTENT | Unit | QUANTITY |
| Biogenic carbon content in product | kg C | 5,0 |
| Biogenic carbon content in packaging | kg C | 0,40 |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

11. Wood/aluminum inward Kipp-dreh window 2+1-glass

Content information

| Product components | Weight, kg | Post-consumer material, weight-% | Renewable material, weight-% |
|-----------------------|------------|----------------------------------|------------------------------|
| Glass | 22,65 | 0% | 0% |
| Edge sealing compound | 0,33 | 0% | 0% |
| Butyl | 0,01 | 0% | 0% |
| Desiccant | 0,08 | 0% | 0% |
| Aluminium | 3,17 | 2% | 0% |
| Argon | 0,02 | 0% | 0% |
| Wood | 9,31 | 0% | 0% |
| Plastic | 0,07 | 0% | 0% |
| Steel | 1,21 | 55% | 0% |
| Rubber EPDM | 0,65 | 0% | 0% |
| Glue | 0,07 | 0% | 0% |
| Sealant | 0,04 | 0% | 0% |
| Paint | 0,37 | 0% | 0% |
| TOTAL | 37,96 | 2% | 0% |
| Packaging materials | Weight, kg | Weight-% (versus the product) | |
| Plastic | 0,085 | 0,2% | |
| Carton | 0,3 | 0,8% | |
| Plywood | 0,54 | 1,4% | |
| TOTAL | 0,9 | 2,4% | |

The declared products do not contain any dangerous substances according to the candidate list of substances of very high concern for authorisation by the European Chemicals Agency.

Environmental information

Potential environmental impact – mandatory indicators according to EN 15804

| Results per 1 m ² window. Wood/aluminum inward Kipp-dreh window 2+1-glass | | | | | | | |
|--|--|-----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-fossil | kg CO ₂ eq. | 7,53E+01 | 0,00E+00 | 3,84E-01 | 1,38E-01 | 9,59E-02 | -2,33E+01 |
| GWP-biogenic | kg CO ₂ eq. | -1,33E+01 | 0,00E+00 | 8,87E-02 | 1,43E+01 | 8,40E-04 | -9,67E-01 |
| GWP-luluc | kg CO ₂ eq. | 5,97E-01 | 0,00E+00 | 1,86E-04 | 9,00E-05 | 2,16E-05 | -5,10E-01 |
| GWP-total | kg CO ₂ eq. | 6,25E+01 | 0,00E+00 | 4,73E-01 | 1,45E+01 | 9,68E-02 | -2,48E+01 |
| ODP | kg CFC 11 eq. | 2,51E+05 | 0,00E+00 | 8,60E-08 | 1,57E-08 | 4,75E-08 | -2,17E-06 |
| AP | mol H ⁺ eq. | 1,04E+01 | 0,00E+00 | 1,17E-03 | 7,88E-04 | 9,41E-04 | -1,43E-01 |
| EP-freshwater | kg P eq. | 2,92E-02 | 0,00E+00 | 3,02E-05 | 3,72E-05 | 5,47E-06 | -1,23E-02 |
| EP-marine | kg N eq. | 9,50E-02 | 0,00E+00 | 2,53E-04 | 3,53E-04 | 3,55E-04 | -2,27E-02 |
| EP-terrestrial | mol N eq. | 1,04E+00 | 0,00E+00 | 2,75E-03 | 2,73E-03 | 3,90E-03 | -1,94E-01 |
| POCP | kg NMVOC eq. | 7,05E-01 | 0,00E+00 | 1,05E-03 | 7,66E-04 | 1,12E-03 | -7,78E-02 |
| ADP-minerals&metals* | kg Sb eq. | 1,45E-03 | 0,00E+00 | 1,67E-06 | 2,80E-06 | 1,87E-07 | -4,49E-05 |
| ADP-fossil* | MJ | 1,08E+03 | 0,00E+00 | 5,75E+00 | 1,42E+00 | 3,10E+00 | -3,72E+02 |
| WDP | m ³ | 2,09E+01 | 0,00E+00 | 2,10E-02 | 1,47E-02 | 9,60E-03 | -2,08E+00 |
| Acronyms | <p>GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption</p> | | | | | | |

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

Potential environmental impact – additional mandatory and voluntary indicators

| Results per 1 m ² window. Wood/aluminum inward Kipp-dreh window 3-glass | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-GHG ¹¹ | kg CO ₂ eq. | 7,49E+01 | 0,00E+00 | 3,81E-01 | 1,90E-01 | 9,47E-02 | -2,32E+01 |
| Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017 | | | | | | | |

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

Use of resources

| Results per 1 m ² window. Wood/aluminum inward Kipp-dreh window 2+1-glass | | | | | | | |
|--|---|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| PERE | MJ | 2,15E+02 | 0,00E+00 | 9,92E-02 | 1,14E-01 | 6,32E-02 | -1,42E+02 |
| PERM | MJ | 1,57E+02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,47E-01 |
| PERT | MJ | 3,73E+02 | 0,00E+00 | 9,92E-02 | 1,14E-01 | 6,32E-02 | -1,42E+02 |
| PENRE | MJ | 1,14E+03 | 0,00E+00 | 6,11E+00 | 1,50E+00 | 3,30E+00 | -3,92E+02 |
| PENRM | MJ. | 2,20E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| PENRT | MJ | 1,15E+03 | 0,00E+00 | 6,11E+00 | 1,50E+00 | 3,30E+00 | -2,50E+01 |
| SM | kg | 7,29E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| RSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| NRSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| FW | m ³ | 1,00E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Acronyms | <p>PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water</p> | | | | | | |

Waste production and output flows

Waste production

| Results per 1 m ² window. Wood/aluminum inward Kipp-dreh window 2+1-glass | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Hazardous waste disposed | kg | 9,97E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Non-hazardous waste disposed | kg | 9,46E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Radioactive waste disposed | kg | 3,67E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Output flows

| Results per 1 m ² window. Wood/aluminum inward Kipp-dreh window 2+1-glass | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Components for re-use | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Material for recycling | kg | 2,22E-01 | 0,00E+00 | 0,00E+00 | 4,38E+00 | 0,00E+00 | 0,00E+00 |
| Materials for energy recovery | kg | 2,79E-01 | 0,00E+00 | 0,00E+00 | 9,38E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, electricity | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, thermal | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Information on biogenic carbon content

| Results per 1 m ² window. Wood/aluminum inward Kipp-dreh window 2+1-glass | | |
|--|------|----------|
| BIOTIC CARBON CONTENT | Unit | QUANTITY |
| Biogenic carbon content in product | kg C | 4,1 |
| Biogenic carbon content in packaging | kg C | 0,40 |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

12. Wood/aluminum inward Kipp-dreh window 3+1-glass

Content information

| Product components | Weight, kg | Post-consumer material, weight-% | Renewable material, weight-% |
|-----------------------|------------|----------------------------------|------------------------------|
| Glass | 30,20 | 0% | 0% |
| Edge sealing compound | 0,65 | 0% | 0% |
| Butyl | 0,02 | 0% | 0% |
| Desiccant | 0,16 | 0% | 0% |
| Aluminium | 3,27 | 2% | 0% |
| Argon | 0,04 | 0% | 0% |
| Wood | 9,31 | 0% | 0% |
| Plastic | 0,07 | 0% | 0% |
| Steel | 1,21 | 55% | 0% |
| Rubber EPDM | 0,65 | 0% | 0% |
| Glue | 0,07 | 0% | 0% |
| Sealant | 0,04 | 0% | 0% |
| Paint | 0,37 | 0% | 0% |
| TOTAL | 46,05 | 2% | 0% |
| Packaging materials | Weight, kg | Weight-% (versus the product) | |
| Plastic | 0,085 | 0,2% | |
| Carton | 0,3 | 0,7% | |
| Plywood | 0,54 | 1,2% | |
| TOTAL | 0,9 | 2,0% | |

The declared products do not contain any dangerous substances according to the candidate list of substances of very high concern for authorisation by the European Chemicals Agency.

Environmental information

Potential environmental impact – mandatory indicators according to EN 15804

| Results per 1 m ² window. Wood/aluminum inward Kipp-dreh window 3+1-glass | | | | | | | |
|--|--|-----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-fossil | kg CO ₂ eq. | 8,97E+01 | 0,00E+00 | 4,60E-01 | 1,54E-01 | 9,59E-02 | -2,37E+01 |
| GWP-biogenic | kg CO ₂ eq. | -1,29E+01 | 0,00E+00 | 1,06E-01 | 1,43E+01 | 8,40E-04 | -9,66E-01 |
| GWP-luluc | kg CO ₂ eq. | 6,23E-01 | 0,00E+00 | 2,23E-04 | 1,02E-04 | 2,16E-05 | -5,12E-01 |
| GWP-total | kg CO ₂ eq. | 7,74E+01 | 0,00E+00 | 5,66E-01 | 1,45E+01 | 9,68E-02 | -2,52E+01 |
| ODP | kg CFC 11 eq. | 2,51E+05 | 0,00E+00 | 1,03E-07 | 1,73E-08 | 4,75E-08 | -2,20E-06 |
| AP | mol H ⁺ eq. | 7,56E-01 | 0,00E+00 | 1,40E-03 | 8,67E-04 | 9,41E-04 | -1,45E-01 |
| EP-freshwater | kg P eq. | 3,19E-02 | 0,00E+00 | 3,61E-05 | 4,20E-05 | 5,47E-06 | -1,25E-02 |
| EP-marine | kg N eq. | 9,68E-02 | 0,00E+00 | 3,03E-04 | 3,89E-04 | 3,55E-04 | -2,31E-02 |
| EP-terrestrial | mol N eq. | 1,06E+00 | 0,00E+00 | 3,30E-03 | 2,97E-03 | 3,90E-03 | -1,98E-01 |
| POCP | kg NMVOC eq. | 3,29E-01 | 0,00E+00 | 1,26E-03 | 8,33E-04 | 1,12E-03 | -7,98E-02 |
| ADP-minerals&metals* | kg Sb eq. | 1,80E-03 | 0,00E+00 | 2,00E-06 | 3,17E-06 | 1,87E-07 | -4,46E-05 |
| ADP-fossil* | MJ | 1,30E+03 | 0,00E+00 | 6,89E+00 | 1,57E+00 | 3,10E+00 | -3,76E+02 |
| WDP | m ³ | 2,40E+01 | 0,00E+00 | 2,52E-02 | 1,66E-02 | 9,60E-03 | -2,10E+00 |
| Acronyms | <p>GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption</p> | | | | | | |

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

Potential environmental impact – additional mandatory and voluntary indicators

| Results per 1 m ² window. Wood/aluminum inward Kipp-dreh window 3+1-glass | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-GHG ¹² | kg CO ₂ eq. | 8,92E+01 | 0,00E+00 | 4,56E-01 | 2,13E-01 | 9,47E-02 | -2,36E+01 |
| Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017 | | | | | | | |

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

Use of resources

| Results per 1 m ² window. Wood/aluminum inward Kipp-dreh window 3+1-glass | | | | | | | |
|--|---|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| PERE | MJ | 2,35E+02 | 0,00E+00 | 1,19E-01 | 1,29E-01 | 6,32E-02 | -1,43E+02 |
| PERM | MJ | 1,57E+02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,47E-01 |
| PERT | MJ | 3,93E+02 | 0,00E+00 | 1,19E-01 | 1,29E-01 | 6,32E-02 | -1,42E+02 |
| PENRE | MJ | 1,38E+03 | 0,00E+00 | 7,31E+00 | 1,66E+00 | 3,30E+00 | -3,97E+02 |
| PENRM | MJ. | 2,20E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| PENRT | MJ | 1,38E+03 | 0,00E+00 | 7,31E+00 | 1,66E+00 | 3,30E+00 | -2,53E+01 |
| SM | kg | 9,14E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| RSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| NRSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| FW | m ³ | 1,00E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Acronyms | <p>PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water</p> | | | | | | |

Waste production and output flows

Waste production

| Results per 1 m ² window. Wood/aluminum inward Kipp-dreh window 3+1-glass | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Hazardous waste disposed | kg | 1,00E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Non-hazardous waste disposed | kg | 1,30E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Radioactive waste disposed | kg | 5,08E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Output flows

| Results per 1 m ² window. Wood/aluminum inward Kipp-dreh window 3+1-glass | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Components for re-use | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Material for recycling | kg | 2,29E-01 | 0,00E+00 | 0,00E+00 | 4,48E+00 | 0,00E+00 | 0,00E+00 |
| Materials for energy recovery | kg | 2,79E-01 | 0,00E+00 | 0,00E+00 | 9,38E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, electricity | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, thermal | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Information on biogenic carbon content

| Results per 1 m ² window. Wood/aluminum inward Kipp-dreh window 3+1-glass | | |
|--|------|----------|
| BIOTIC CARBON CONTENT | Unit | QUANTITY |
| Biogenic carbon content in product | kg C | 4,1 |
| Biogenic carbon content in packaging | kg C | 0,40 |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

13. Wood outward patio door (SF 2010)

Content information

| Product components | Weight, kg | Post-consumer material, weight-% | Renewable material, weight-% |
|-----------------------|------------|----------------------------------|------------------------------|
| Glass | 12,44 | 0% | 0% |
| Edge sealing compound | 0,40 | 0% | 0% |
| Butyl | 0,01 | 0% | 0% |
| Desiccant | 0,09 | 0% | 0% |
| Aluminium | 1,44 | 2% | 0% |
| Argon | 0,02 | 0% | 0% |
| Wood | 9,10 | 0% | 0% |
| Plastic | 0,10 | 0% | 0% |
| Steel | 1,33 | 55% | 0% |
| Rubber EPDM | 0,37 | 0% | 0% |
| Glue | 0,06 | 0% | 0% |
| Sealant | 0,03 | 0% | 0% |
| Polyurethane PUR | 0,55 | 0% | 0% |
| Fiberboard (wood) | 1,85 | 0% | 0% |
| Paint | 0,31 | 0% | 0% |
| TOTAL | 28,10 | 3% | 0% |
| Packaging materials | Weight, kg | Weight-% (versus the product) | |
| Plastic | 0,085 | 0,3% | |
| Carton | 0,3 | 1,1% | |
| Plywood | 0,54 | 1,9% | |
| TOTAL | 0,9 | 3,3% | |

The declared products do not contain any dangerous substances according to the candidate list of substances of very high concern for authorisation by the European Chemicals Agency.

Environmental information

Potential environmental impact – mandatory indicators according to EN 15804

| Results per 1 m ² door. Wood outward patio door | | | | | | | |
|--|--|-----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-fossil | kg CO ₂ eq. | 4,86E+01 | 0,00E+00 | 2,96E-01 | 1,08E-01 | 5,28E-02 | -1,29E+01 |
| GWP-biogenic | kg CO ₂ eq. | -1,57E+01 | 0,00E+00 | 6,84E-02 | 1,64E+01 | 4,62E-04 | -1,02E+00 |
| GWP-luluc | kg CO ₂ eq. | 2,30E-01 | 0,00E+00 | 1,44E-04 | 6,55E-05 | 1,19E-05 | -2,44E-01 |
| GWP-total | kg CO ₂ eq. | 3,31E+01 | 0,00E+00 | 3,64E-01 | 1,65E+01 | 5,33E-02 | -1,41E+01 |
| ODP | kg CFC 11 eq. | 2,23E+05 | 0,00E+00 | 6,63E-08 | 1,31E-08 | 2,61E-08 | -9,96E-07 |
| AP | mol H ⁺ eq. | 4,18E-01 | 0,00E+00 | 9,02E-04 | 6,54E-04 | 5,18E-04 | -7,20E-02 |
| EP-freshwater | kg P eq. | 1,97E-02 | 0,00E+00 | 2,33E-05 | 2,70E-05 | 3,01E-06 | -5,98E-03 |
| EP-marine | kg N eq. | 5,32E-02 | 0,00E+00 | 1,95E-04 | 2,93E-04 | 1,96E-04 | -1,40E-02 |
| EP-terrestrial | mol N eq. | 5,62E-01 | 0,00E+00 | 2,12E-03 | 2,39E-03 | 2,15E-03 | -1,12E-01 |
| POCP | kg NMVOC eq. | 1,82E-01 | 0,00E+00 | 8,12E-04 | 6,68E-04 | 6,14E-04 | -4,85E-02 |
| ADP-minerals&metals* | kg Sb eq. | 1,64E-03 | 0,00E+00 | 1,29E-06 | 2,02E-06 | 1,03E-07 | -2,46E-05 |
| ADP-fossil* | MJ | 7,22E+02 | 0,00E+00 | 4,43E+00 | 1,13E+00 | 1,71E+00 | -2,10E+02 |
| WDP | m ³ | 1,79E+01 | 0,00E+00 | 1,62E-02 | 1,08E-02 | 5,29E-03 | -1,39E+00 |
| Acronyms | <p>GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption</p> | | | | | | |

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

Potential environmental impact – additional mandatory and voluntary indicators

| Results per 1 m ² door. Wood outward patio door | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-GHG ¹³ | kg CO ₂ eq. | 4,83E+01 | 0,00E+00 | 2,94E-01 | 1,45E-01 | 5,21E-02 | -1,28E+01 |
| Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017 | | | | | | | |

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

Use of resources

| Results per 1 m ² door. Wood outward patio door | | | | | | | |
|--|---|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| PERE | MJ | 1,58E+02 | 0,00E+00 | 7,65E-02 | 8,28E-02 | 3,48E-02 | -7,39E+01 |
| PERM | MJ | 1,87E+02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,47E-01 |
| PERT | MJ | 3,45E+02 | 0,00E+00 | 7,65E-02 | 8,28E-02 | 3,48E-02 | -7,34E+01 |
| PENRE | MJ | 7,67E+02 | 0,00E+00 | 4,71E+00 | 1,20E+00 | 1,81E+00 | -2,20E+02 |
| PENRM | MJ. | 1,78E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| PENRT | MJ | 7,85E+02 | 0,00E+00 | 4,71E+00 | 1,20E+00 | 1,81E+00 | -1,64E+01 |
| SM | kg | 7,61E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| RSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| NRSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| FW | m ³ | 1,00E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Acronyms | <p>PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water</p> | | | | | | |

Waste production and output flows

Waste production

| Results per 1 m ² door. Wood outward patio door | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Hazardous waste disposed | kg | 2,18E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Non-hazardous waste disposed | kg | 1,07E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Radioactive waste disposed | kg | 2,93E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Output flows

| Results per 1 m ² door. Wood outward patio door | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Components for re-use | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Material for recycling | kg | 1,01E-01 | 0,00E+00 | 0,00E+00 | 2,77E+00 | 0,00E+00 | 0,00E+00 |
| Materials for energy recovery | kg | 2,73E-01 | 0,00E+00 | 0,00E+00 | 1,16E+01 | 0,00E+00 | 0,00E+00 |
| Exported energy, electricity | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, thermal | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

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

Information on biogenic carbon content

| Results per 1 m ² door. Wood outward patio door | | |
|--|------|----------|
| BIOTIC CARBON CONTENT | Unit | QUANTITY |
| Biogenic carbon content in product | kg C | 4,9 |
| Biogenic carbon content in packaging | kg C | 0,40 |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

14. Wood/aluminum outward patio door (SF 2010)

Content information

| Product components | Weight, kg | Post-consumer material, weight-% | Renewable material, weight-% |
|-----------------------|------------|----------------------------------|------------------------------|
| Glass | 12,44 | 0% | 0% |
| Edge sealing compound | 0,40 | 0% | 0% |
| Butyl | 0,01 | 0% | 0% |
| Desiccant | 0,09 | 0% | 0% |
| Aluminium | 3,68 | 2% | 0% |
| Argon | 0,02 | 0% | 0% |
| Wood | 8,35 | 0% | 0% |
| Plastic | 0,18 | 0% | 0% |
| Steel | 1,33 | 55% | 0% |
| Rubber EPDM | 0,37 | 0% | 0% |
| Glue | 0,06 | 0% | 0% |
| Sealant | 0,03 | 0% | 0% |
| Polyurethane PUR | 0,59 | 0% | 0% |
| Fiberboard (wood) | 0,92 | 0% | 0% |
| Paint | 0,31 | 0% | 0% |
| TOTAL | 28,81 | 3% | 0% |
| Packaging materials | Weight, kg | Weight-% (versus the product) | |
| Plastic | 0,085 | 1,0% | |
| Carton | 0,3 | 3,6% | |
| Plywood | 0,54 | 6,5% | |
| TOTAL | 0,9 | 3,2% | |

The declared products do not contain any dangerous substances according to the candidate list of substances of very high concern for authorisation by the European Chemicals Agency.

Environmental information

Potential environmental impact – mandatory indicators according to EN 15804

| Results per 1 m ² door. Wood/aluminum outward patio door | | | | | | | |
|---|--|-----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-fossil | kg CO ₂ eq. | 6,69E+01 | 0,00E+00 | 3,54E-01 | 1,78E-01 | 5,28E-02 | -2,77E+01 |
| GWP-biogenic | kg CO ₂ eq. | -1,42E+01 | 0,00E+00 | 8,18E-02 | 1,50E+01 | 4,62E-04 | -9,94E-01 |
| GWP-luluc | kg CO ₂ eq. | 6,23E-01 | 0,00E+00 | 1,72E-04 | 1,19E-04 | 1,19E-05 | -6,05E-01 |
| GWP-total | kg CO ₂ eq. | 5,33E+01 | 0,00E+00 | 4,36E-01 | 1,52E+01 | 5,33E-02 | -2,93E+01 |
| ODP | kg CFC 11 eq. | 2,09E+05 | 0,00E+00 | 7,93E-08 | 1,96E-08 | 2,61E-08 | -2,61E-06 |
| AP | mol H ⁺ eq. | 5,74E-01 | 0,00E+00 | 1,08E-03 | 9,82E-04 | 5,18E-04 | -1,70E-01 |
| EP-freshwater | kg P eq. | 3,39E-02 | 0,00E+00 | 2,78E-05 | 4,92E-05 | 3,01E-06 | -1,48E-02 |
| EP-marine | kg N eq. | 6,81E-02 | 0,00E+00 | 2,33E-04 | 4,40E-04 | 1,96E-04 | -2,66E-02 |
| EP-terrestrial | mol N eq. | 6,94E-01 | 0,00E+00 | 2,54E-03 | 3,32E-03 | 2,15E-03 | -2,30E-01 |
| POCP | kg NMVOC eq. | 2,33E-01 | 0,00E+00 | 9,72E-04 | 9,32E-04 | 6,14E-04 | -9,20E-02 |
| ADP-minerals&metals* | kg Sb eq. | 2,45E-03 | 0,00E+00 | 1,54E-06 | 3,72E-06 | 1,03E-07 | -5,17E-05 |
| ADP-fossil* | MJ | 1,00E+03 | 0,00E+00 | 5,31E+00 | 1,80E+00 | 1,71E+00 | -4,37E+02 |
| WDP | m ³ | 1,92E+01 | 0,00E+00 | 1,94E-02 | 1,94E-02 | 5,29E-03 | -2,38E+00 |
| Acronyms | <p>GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption</p> | | | | | | |

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

Potential environmental impact – additional mandatory and voluntary indicators

| Results per 1 m ² door. Wood/aluminum outward patio door | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-GHG ¹⁴ | kg CO ₂ eq. | 6,64E+01 | 0,00E+00 | 3,51E-01 | 2,46E-01 | 5,21E-02 | -2,75E+01 |
| Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017 | | | | | | | |

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

Use of resources

| Results per 1 m ² door. Wood/aluminum outward patio door | | | | | | | |
|---|---|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| PERE | MJ | 2,44E+02 | 0,00E+00 | 9,16E-02 | 1,51E-01 | 3,48E-02 | -1,67E+02 |
| PERM | MJ | 1,58E+02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,47E-01 |
| PERT | MJ | 4,02E+02 | 0,00E+00 | 9,16E-02 | 1,51E-01 | 3,48E-02 | -1,66E+02 |
| PENRE | MJ | 1,07E+03 | 0,00E+00 | 5,63E+00 | 1,90E+00 | 1,81E+00 | -4,61E+02 |
| PENRM | MJ. | 2,19E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| PENRT | MJ | 1,09E+03 | 0,00E+00 | 5,63E+00 | 1,90E+00 | 1,81E+00 | -4,15E+01 |
| SM | kg | 8,06E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| RSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| NRSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| FW | m ³ | 1,00E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Acronyms | <p>PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water</p> | | | | | | |

Waste production and output flows

Waste production

| Results per 1 m ² door. Wood/aluminum outward patio door | | | | | | | |
|---|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Hazardous waste disposed | kg | 4,35E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Non-hazardous waste disposed | kg | 1,53E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Radioactive waste disposed | kg | 2,97E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Output flows

| Results per 1 m ² door. Wood/aluminum outward patio door | | | | | | | |
|---|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Components for re-use | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Material for recycling | kg | 2,58E-01 | 0,00E+00 | 0,00E+00 | 5,02E+00 | 0,00E+00 | 0,00E+00 |
| Materials for energy recovery | kg | 2,51E-01 | 0,00E+00 | 0,00E+00 | 1,01E+01 | 0,00E+00 | 0,00E+00 |
| Exported energy, electricity | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, thermal | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

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

Information on biogenic carbon content

| Results per 1 m ² door. Wood/aluminum outward patio door | | |
|---|------|----------|
| BIOTIC CARBON CONTENT | Unit | QUANTITY |
| Biogenic carbon content in product | kg C | 4,1 |
| Biogenic carbon content in packaging | kg C | 0,40 |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

15. Wood/aluminum inward patio door 3-glass

Content information

| Product components | Weight, kg | Post-consumer material, weight-% | Renewable material, weight-% |
|-----------------------|------------|----------------------------------|------------------------------|
| Glass | 12,54 | 0% | 0% |
| Edge sealing compound | 0,40 | 0% | 0% |
| Butyl | 0,01 | 0% | 0% |
| Desiccant | 0,09 | 0% | 0% |
| Aluminium | 3,14 | 2% | 0% |
| Argon | 0,02 | 0% | 0% |
| Wood | 10,73 | 0% | 0% |
| Plastic | 0,16 | 0% | 0% |
| Steel | 0,73 | 55% | 0% |
| Rubber EPDM | 0,55 | 0% | 0% |
| Glue | 0,06 | 0% | 0% |
| Sealant | 0,03 | 0% | 0% |
| Polyurethane PUR | 0,49 | 0% | 0% |
| Fiberboard (wood) | 0,95 | 0% | 0% |
| Paint | 0,34 | 0% | 0% |
| TOTAL | 30,24 | 2% | 0% |
| Packaging materials | Weight, kg | Weight-% (versus the product) | |
| Plastic | 0,085 | 0,3% | |
| Carton | 0,3 | 1,0% | |
| Plywood | 0,54 | 1,8% | |
| TOTAL | 0,9 | 3,1% | |

The declared products do not contain any dangerous substances according to the candidate list of substances of very high concern for authorisation by the European Chemicals Agency.

Environmental information

Potential environmental impact – mandatory indicators according to EN 15804

| Results per 1 m ² door. Wood/aluminum inward patio door 3-glass | | | | | | | |
|--|--|-----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-fossil | kg CO ₂ eq. | 6,05E+01 | 0,00E+00 | 3,36E-01 | 1,43E-01 | 4,34E-02 | -2,38E+01 |
| GWP-biogenic | kg CO ₂ eq. | -1,86E+01 | 0,00E+00 | 7,76E-02 | 1,92E+01 | 3,80E-04 | -1,17E+00 |
| GWP-luluc | kg CO ₂ eq. | 5,86E-01 | 0,00E+00 | 1,63E-04 | 9,05E-05 | 9,76E-06 | -5,13E-01 |
| GWP-total | kg CO ₂ eq. | 4,24E+01 | 0,00E+00 | 4,14E-01 | 1,93E+01 | 4,38E-02 | -2,55E+01 |
| ODP | kg CFC 11 eq. | 2,35E+05 | 0,00E+00 | 7,52E-08 | 1,67E-08 | 2,15E-08 | -2,16E-06 |
| AP | mol H ⁺ eq. | 4,74E-01 | 0,00E+00 | 1,02E-03 | 8,37E-04 | 4,25E-04 | -1,44E-01 |
| EP-freshwater | kg P eq. | 7,77E-02 | 0,00E+00 | 8,12E-05 | 1,15E-04 | 7,60E-06 | -3,79E-02 |
| EP-marine | kg N eq. | 2,53E-02 | 0,00E+00 | 2,64E-05 | 3,74E-05 | 2,47E-06 | -1,23E-02 |
| EP-terrestrial | mol N eq. | 6,20E-02 | 0,00E+00 | 2,21E-04 | 3,75E-04 | 1,61E-04 | -2,38E-02 |
| POCP | kg NMVOC eq. | 6,35E-01 | 0,00E+00 | 2,41E-03 | 2,97E-03 | 1,76E-03 | -2,00E-01 |
| ADP-minerals&metals* | kg Sb eq. | 2,16E-01 | 0,00E+00 | 9,22E-04 | 8,31E-04 | 5,05E-04 | -8,10E-02 |
| ADP-fossil* | MJ | 1,12E-03 | 0,00E+00 | 1,46E-06 | 2,81E-06 | 8,46E-08 | -4,65E-05 |
| WDP | m ³ | 9,27E+02 | 0,00E+00 | 5,03E+00 | 1,48E+00 | 1,40E+00 | -3,83E+02 |
| Acronyms | <p>GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption</p> | | | | | | |

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

Potential environmental impact – additional mandatory and voluntary indicators

| Results per 1 m ² door. Wood/aluminum inward patio door 3-glass | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-GHG ¹⁵ | kg CO ₂ eq. | 6,01E+01 | 0,00E+00 | 3,33E-01 | 1,95E-01 | 4,28E-02 | -2,37E+01 |
| Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017 | | | | | | | |

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

Use of resources

| Results per 1 m ² door. Wood/aluminum inward patio door 3-glass | | | | | | | |
|--|---|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| PERE | MJ | 2,64E+02 | 0,00E+00 | 8,69E-02 | 1,15E-01 | 2,86E-02 | -1,45E+02 |
| PERM | MJ | 1,99E+02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,47E-01 |
| PERT | MJ | 4,62E+02 | 0,00E+00 | 8,69E-02 | 1,15E-01 | 2,86E-02 | -1,45E+02 |
| PENRE | MJ | 9,85E+02 | 0,00E+00 | 5,34E+00 | 1,57E+00 | 1,49E+00 | -4,03E+02 |
| PENRM | MJ. | 1,82E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| PENRT | MJ | 1,00E+03 | 0,00E+00 | 5,34E+00 | 1,57E+00 | 1,49E+00 | -2,02E+01 |
| SM | kg | 4,62E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| RSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| NRSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| FW | m ³ | 1,00E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Acronyms | <p>PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water</p> | | | | | | |

Waste production and output flows

Waste production

| Results per 1 m ² door. Wood/aluminum inward patio door 3-glass | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Hazardous waste disposed | kg | 6,79E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Non-hazardous waste disposed | kg | 7,59E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Radioactive waste disposed | kg | 2,92E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Output flows

| Results per 1 m ² door. Wood/aluminum inward patio door 3-glass | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Components for re-use | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Material for recycling | kg | 2,20E-01 | 0,00E+00 | 0,00E+00 | 3,87E+00 | 0,00E+00 | 0,00E+00 |
| Materials for energy recovery | kg | 3,22E-01 | 0,00E+00 | 0,00E+00 | 1,23E+01 | 0,00E+00 | 0,00E+00 |
| Exported energy, electricity | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, thermal | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

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

Information on biogenic carbon content

| Results per 1 m ² door. Wood/aluminum inward patio door 3-glass | | |
|--|------|----------|
| BIOTIC CARBON CONTENT | Unit | QUANTITY |
| Biogenic carbon content in product | kg C | 5,2 |
| Biogenic carbon content in packaging | kg C | 0,40 |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

16. Wood/aluminum inward patio door 2+1-glass

Content information

| Product components | Weight, kg | Post-consumer material, weight-% | Renewable material, weight-% |
|-----------------------|------------|----------------------------------|------------------------------|
| Glass | 13,02 | 0% | 0% |
| Edge sealing compound | 0,20 | 0% | 0% |
| Butyl | 0,01 | 0% | 0% |
| Desiccant | 0,05 | 0% | 0% |
| Aluminium | 4,02 | 2% | 0% |
| Argon | 0,01 | 0% | 0% |
| Wood | 8,66 | 0% | 0% |
| Plastic | 0,43 | 0% | 0% |
| Steel | 0,73 | 55% | 0% |
| Rubber EPDM | 0,62 | 0% | 0% |
| Glue | 0,06 | 0% | 0% |
| Sealant | 0,03 | 0% | 0% |
| Polyurethane PUR | 0,28 | 0% | 0% |
| Fiberboard (wood) | 2,91 | 0% | 0% |
| Paint | 0,31 | 0% | 0% |
| TOTAL | 31,34 | 2% | 0% |
| Packaging materials | Weight, kg | Weight-% (versus the product) | |
| Plastic | 0,085 | 0,3% | |
| Carton | 0,3 | 1,0% | |
| Plywood | 0,54 | 1,7% | |
| TOTAL | 0,9 | 3,0% | |

The declared products do not contain any dangerous substances according to the candidate list of substances of very high concern for authorisation by the European Chemicals Agency.

Environmental information

Potential environmental impact – mandatory indicators according to EN 15804

| Results per 1 m ² door. Wood/aluminum inward patio door 2+1-glass | | | | | | | |
|--|--|-----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-fossil | kg CO ₂ eq. | 6,48E+01 | 0,00E+00 | 3,33E-01 | 1,73E-01 | 6,18E-02 | -3,01E+01 |
| GWP-biogenic | kg CO ₂ eq. | -1,57E+01 | 0,00E+00 | 7,69E-02 | 1,62E+01 | 5,41E-04 | -1,21E+00 |
| GWP-luluc | kg CO ₂ eq. | 7,35E-01 | 0,00E+00 | 1,62E-04 | 1,13E-04 | 1,39E-05 | -6,65E-01 |
| GWP-total | kg CO ₂ eq. | 4,98E+01 | 0,00E+00 | 4,10E-01 | 1,64E+01 | 6,23E-02 | -3,20E+01 |
| ODP | kg CFC 11 eq. | 1,96E+05 | 0,00E+00 | 7,46E-08 | 1,97E-08 | 3,06E-08 | -2,83E-06 |
| AP | mol H ⁺ eq. | 6,11E+00 | 0,00E+00 | 1,01E-03 | 9,86E-04 | 6,06E-04 | -1,86E-01 |
| EP-freshwater | kg P eq. | 2,84E-02 | 0,00E+00 | 2,62E-05 | 4,66E-05 | 3,52E-06 | -1,60E-02 |
| EP-marine | kg N eq. | 7,76E-02 | 0,00E+00 | 2,19E-04 | 4,42E-04 | 2,29E-04 | -2,93E-02 |
| EP-terrestrial | mol N eq. | 8,17E-01 | 0,00E+00 | 2,39E-03 | 3,42E-03 | 2,51E-03 | -2,51E-01 |
| POCP | kg NMVOC eq. | 4,85E-01 | 0,00E+00 | 9,14E-04 | 9,57E-04 | 7,19E-04 | -1,00E-01 |
| ADP-minerals&metals* | kg Sb eq. | 1,06E-03 | 0,00E+00 | 1,45E-06 | 3,51E-06 | 1,21E-07 | -5,82E-05 |
| ADP-fossil* | MJ | 9,71E+02 | 0,00E+00 | 4,99E+00 | 1,77E+00 | 2,00E+00 | -4,80E+02 |
| WDP | m ³ | 1,90E+01 | 0,00E+00 | 1,83E-02 | 1,85E-02 | 6,19E-03 | -2,67E+00 |
| Acronyms | <p>GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption</p> | | | | | | |

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

Potential environmental impact – additional mandatory and voluntary indicators

| Results per 1 m ² door. Wood/aluminum inward patio door 2+1-glass | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-GHG ¹⁶ | kg CO ₂ eq. | 6,44E+01 | 0,00E+00 | 3,30E-01 | 2,38E-01 | 6,10E-02 | -2,99E+01 |
| Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017 | | | | | | | |

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

Use of resources

| Results per 1 m ² door. Wood/aluminum inward patio door 2+1-glass | | | | | | | |
|--|---|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| PERE | MJ | 3,19E+02 | 0,00E+00 | 8,61E-02 | 1,43E-01 | 4,07E-02 | -1,85E+02 |
| PERM | MJ | 1,99E+02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,47E-01 |
| PERT | MJ | 5,18E+02 | 0,00E+00 | 8,61E-02 | 1,43E-01 | 4,07E-02 | -1,84E+02 |
| PENRE | MJ | 1,03E+03 | 0,00E+00 | 5,30E+00 | 1,88E+00 | 2,12E+00 | -5,07E+02 |
| PENRM | MJ. | 2,17E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| PENRT | MJ | 1,05E+03 | 0,00E+00 | 5,30E+00 | 1,88E+00 | 2,12E+00 | -2,28E+01 |
| SM | kg | 4,79E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| RSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| NRSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| FW | m ³ | 1,00E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Acronyms | <p>PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water</p> | | | | | | |

Waste production and output flows

Waste production

| Results per 1 m ² door. Wood/aluminum inward patio door 2+1-glass | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Hazardous waste disposed | kg | 6,76E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Non-hazardous waste disposed | kg | 5,72E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Radioactive waste disposed | kg | 2,16E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Output flows

| Results per 1 m ² door. Wood/aluminum inward patio door 2+1-glass | | | | | | | |
|--|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Components for re-use | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Material for recycling | kg | 2,81E-01 | 0,00E+00 | 0,00E+00 | 5,02E+00 | 0,00E+00 | 0,00E+00 |
| Materials for energy recovery | kg | 2,60E-01 | 0,00E+00 | 0,00E+00 | 1,01E+01 | 0,00E+00 | 0,00E+00 |
| Exported energy, electricity | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, thermal | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

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

Information on biogenic carbon content

| Results per 1 m ² door. Wood/aluminum inward patio door 2+1-glass | | |
|--|------|----------|
| BIOTIC CARBON CONTENT | Unit | QUANTITY |
| Biogenic carbon content in product | kg C | 5,2 |
| Biogenic carbon content in packaging | kg C | 0,40 |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

17. Wood/aluminum outward patio door 2+1-glass

Content information

| Product components | Weight, kg | Post-consumer material, weight-% | Renewable material, weight-% |
|-----------------------|------------|----------------------------------|------------------------------|
| Glass | 12,40 | 0% | 0% |
| Edge sealing compound | 0,20 | 0% | 0% |
| Butyl | 0,01 | 0% | 0% |
| Desiccant | 0,05 | 0% | 0% |
| Aluminium | 3,99 | 2% | 0% |
| Argon | 0,01 | 0% | 0% |
| Wood | 8,58 | 0% | 0% |
| Plastic | 0,46 | 0% | 0% |
| Steel | 1,51 | 55% | 0% |
| Rubber EPDM | 0,46 | 0% | 0% |
| Glue | 0,06 | 0% | 0% |
| Sealant | 0,03 | 0% | 0% |
| Polyurethane PUR | 0,27 | 0% | 0% |
| Fiberboard (wood) | 2,78 | 0% | 0% |
| Paint | 0,32 | 0% | 0% |
| TOTAL | 31,10 | 3% | 0% |
| Packaging materials | Weight, kg | Weight-% (versus the product) | |
| Plastic | 0,085 | 0,3% | |
| Carton | 0,3 | 1,0% | |
| Plywood | 0,54 | 1,7% | |
| TOTAL | 0,9 | 3,0% | |

The declared products do not contain any dangerous substances according to the candidate list of substances of very high concern for authorisation by the European Chemicals Agency.

Environmental information

Potential environmental impact – mandatory indicators according to EN 15804

| Results per 1 m ² door. Wood/aluminum outward patio door 2+1-glass | | | | | | | |
|---|--|-----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-fossil | kg CO ₂ eq. | 7,34E+01 | 0,00E+00 | 3,51E-01 | 1,96E-01 | 6,09E-02 | -3,02E+01 |
| GWP-biogenic | kg CO ₂ eq. | -1,39E+01 | 0,00E+00 | 8,12E-02 | 1,48E+01 | 5,34E-04 | -1,19E+00 |
| GWP-luluc | kg CO ₂ eq. | 7,39E-01 | 0,00E+00 | 1,70E-04 | 1,30E-04 | 1,37E-05 | -6,53E-01 |
| GWP-total | kg CO ₂ eq. | 6,03E+01 | 0,00E+00 | 4,33E-01 | 1,50E+01 | 6,15E-02 | -3,20E+01 |
| ODP | kg CFC 11 eq. | 2,03E+05 | 0,00E+00 | 7,87E-08 | 2,19E-08 | 3,02E-08 | -2,81E-06 |
| AP | mol H ⁺ eq. | 5,91E+00 | 0,00E+00 | 1,07E-03 | 1,10E-03 | 5,98E-04 | -1,85E-01 |
| EP-freshwater | kg P eq. | 3,27E-02 | 0,00E+00 | 2,76E-05 | 5,37E-05 | 3,47E-06 | -1,60E-02 |
| EP-marine | kg N eq. | 8,44E-02 | 0,00E+00 | 2,32E-04 | 4,92E-04 | 2,26E-04 | -2,93E-02 |
| EP-terrestrial | mol N eq. | 8,84E-01 | 0,00E+00 | 2,52E-03 | 3,75E-03 | 2,48E-03 | -2,52E-01 |
| POCP | kg NMVOC eq. | 4,98E-01 | 0,00E+00 | 9,64E-04 | 1,05E-03 | 7,09E-04 | -1,01E-01 |
| ADP-minerals&metals* | kg Sb eq. | 1,35E-03 | 0,00E+00 | 1,53E-06 | 4,06E-06 | 1,19E-07 | -5,66E-05 |
| ADP-fossil* | MJ | 1,09E+03 | 0,00E+00 | 5,27E+00 | 1,99E+00 | 1,97E+00 | -4,78E+02 |
| WDP | m ³ | 2,17E+01 | 0,00E+00 | 1,93E-02 | 2,13E-02 | 6,10E-03 | -2,65E+00 |
| Acronyms | <p>GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption</p> | | | | | | |

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

Potential environmental impact – additional mandatory and voluntary indicators

| Results per 1 m ² door. Wood/aluminum outward patio door 2+1-glass | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-GHG ¹⁷ | kg CO ₂ eq. | 7,30E+01 | 0,00E+00 | 3,49E-01 | 2,71E-01 | 6,01E-02 | -3,00E+01 |
| Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017 | | | | | | | |

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

Use of resources

| Results per 1 m ² door. Wood/aluminum outward patio door 2+1-glass | | | | | | | |
|---|---|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| PERE | MJ | 3,11E+02 | 0,00E+00 | 9,09E-02 | 1,65E-01 | 4,01E-02 | -1,82E+02 |
| PERM | MJ | 1,95E+02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,47E-01 |
| PERT | MJ | 5,06E+02 | 0,00E+00 | 9,09E-02 | 1,65E-01 | 4,01E-02 | -1,81E+02 |
| PENRE | MJ | 1,16E+03 | 0,00E+00 | 5,59E+00 | 2,11E+00 | 2,09E+00 | -5,04E+02 |
| PENRM | MJ. | 2,21E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| PENRT | MJ | 1,18E+03 | 0,00E+00 | 5,59E+00 | 2,11E+00 | 2,09E+00 | -2,68E+01 |
| SM | kg | 9,12E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| RSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| NRSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| FW | m ³ | 1,00E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Acronyms | <p>PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water</p> | | | | | | |

Waste production and output flows

Waste production

| Results per 1 m ² door. Wood/aluminum outward patio door 2+1-glass | | | | | | | |
|---|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Hazardous waste disposed | kg | 1,09E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Non-hazardous waste disposed | kg | 6,42E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Radioactive waste disposed | kg | 2,09E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Output flows

| Results per 1 m ² door. Wood/aluminum outward patio door 2+1-glass | | | | | | | |
|---|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Components for re-use | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Material for recycling | kg | 2,79E-01 | 0,00E+00 | 0,00E+00 | 5,50E+00 | 0,00E+00 | 0,00E+00 |
| Materials for energy recovery | kg | 2,57E-01 | 0,00E+00 | 0,00E+00 | 1,21E+01 | 0,00E+00 | 0,00E+00 |
| Exported energy, electricity | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, thermal | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

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

Information on biogenic carbon content

| Results per 1 m ² door. Wood/aluminum outward patio door 2+1-glass | | |
|---|------|----------|
| BIOTIC CARBON CONTENT | Unit | QUANTITY |
| Biogenic carbon content in product | kg C | 5,1 |
| Biogenic carbon content in packaging | kg C | 0,40 |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

18. Wood/aluminum outward patio door 3+1-glass

Content information

| Product components | Weight, kg | Post-consumer material, weight-% | Renewable material, weight-% |
|-----------------------|------------|----------------------------------|------------------------------|
| Glass | 16,54 | 0% | 0% |
| Edge sealing compound | 0,30 | 0% | 0% |
| Butyl | 0,01 | 0% | 0% |
| Desiccant | 0,04 | 0% | 0% |
| Aluminium | 3,99 | 2% | 0% |
| Argon | 0,02 | 0% | 0% |
| Wood | 8,58 | 0% | 0% |
| Plastic | 0,46 | 0% | 0% |
| Steel | 1,51 | 55% | 0% |
| Rubber EPDM | 0,46 | 0% | 0% |
| Glue | 0,06 | 0% | 0% |
| Sealant | 0,03 | 0% | 0% |
| Polyurethane PUR | 0,37 | 0% | 0% |
| Fiberboard (wood) | 2,78 | 0% | 0% |
| Paint | 0,32 | 0% | 0% |
| TOTAL | 35,44 | 3% | 0% |
| Packaging materials | Weight, kg | Weight-% (versus the product) | |
| Plastic | 0,085 | 0,2% | |
| Carton | 0,3 | 0,8% | |
| Plywood | 0,54 | 1,5% | |
| TOTAL | 0,9 | 2,6% | |

The declared products do not contain any dangerous substances according to the candidate list of substances of very high concern for authorisation by the European Chemicals Agency.

Environmental information

Potential environmental impact – mandatory indicators according to EN 15804

| Results per 1 m ² door. Wood/aluminum outward patio door 3+1-glass | | | | | | | |
|---|--|-----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-fossil | kg CO ₂ eq. | 7,87E+01 | 0,00E+00 | 3,85E-01 | 1,96E-01 | 6,09E-02 | -3,02E+01 |
| GWP-biogenic | kg CO ₂ eq. | -1,38E+01 | 0,00E+00 | 8,90E-02 | 1,48E+01 | 5,34E-04 | -1,19E+00 |
| GWP-luluc | kg CO ₂ eq. | 7,46E-01 | 0,00E+00 | 1,87E-04 | 1,30E-04 | 1,37E-05 | -6,53E-01 |
| GWP-total | kg CO ₂ eq. | 6,56E+01 | 0,00E+00 | 4,75E-01 | 1,50E+01 | 6,15E-02 | -3,20E+01 |
| ODP | kg CFC 11 eq. | 2,03E+05 | 0,00E+00 | 8,63E-08 | 2,19E-08 | 3,02E-08 | -2,81E-06 |
| AP | mol H ⁺ eq. | 6,11E-01 | 0,00E+00 | 1,17E-03 | 1,10E-03 | 5,98E-04 | -1,85E-01 |
| EP-freshwater | kg P eq. | 3,33E-02 | 0,00E+00 | 3,03E-05 | 5,37E-05 | 3,47E-06 | -1,60E-02 |
| EP-marine | kg N eq. | 8,29E-02 | 0,00E+00 | 2,54E-04 | 4,92E-04 | 2,26E-04 | -2,93E-02 |
| EP-terrestrial | mol N eq. | 8,64E-01 | 0,00E+00 | 2,77E-03 | 3,75E-03 | 2,48E-03 | -2,52E-01 |
| POCP | kg NMVOC eq. | 2,83E-01 | 0,00E+00 | 1,06E-03 | 1,05E-03 | 7,09E-04 | -1,01E-01 |
| ADP-minerals&metals* | kg Sb eq. | 1,49E-03 | 0,00E+00 | 1,68E-06 | 4,06E-06 | 1,19E-07 | -5,66E-05 |
| ADP-fossil* | MJ | 1,18E+03 | 0,00E+00 | 5,77E+00 | 1,99E+00 | 1,97E+00 | -4,78E+02 |
| WDP | m ³ | 2,28E+01 | 0,00E+00 | 2,11E-02 | 2,13E-02 | 6,10E-03 | -2,65E+00 |
| Acronyms | <p>GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption</p> | | | | | | |

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

Potential environmental impact – additional mandatory and voluntary indicators

| Results per 1 m ² door. Wood/aluminum outward patio door 3+1-glass | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| GWP-GHG ¹⁸ | kg CO ₂ eq. | 7,82E+01 | 0,00E+00 | 3,82E-01 | 2,71E-01 | 6,01E-02 | -3,00E+01 |
| Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017 | | | | | | | |

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

Use of resources

| Results per 1 m ² door. Wood/aluminum outward patio door 3+1-glass | | | | | | | |
|---|---|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| PERE | MJ | 3,16E+02 | 0,00E+00 | 9,97E-02 | 1,65E-01 | 4,01E-02 | -1,82E+02 |
| PERM | MJ | 1,95E+02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,47E-01 |
| PERT | MJ | 5,11E+02 | 0,00E+00 | 9,97E-02 | 1,65E-01 | 4,01E-02 | -1,81E+02 |
| PENRE | MJ | 1,26E+03 | 0,00E+00 | 6,13E+00 | 2,11E+00 | 2,09E+00 | -5,04E+02 |
| PENRM | MJ. | 2,47E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| PENRT | MJ | 1,28E+03 | 0,00E+00 | 6,13E+00 | 2,11E+00 | 2,09E+00 | -2,74E+01 |
| SM | kg | 9,12E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| RSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| NRSF | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| FW | m ³ | 1,00E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Acronyms | <p>PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water</p> | | | | | | |

Waste production and output flows

Waste production

| Results per 1 m ² door. Wood/aluminum outward patio door 3+1-glass | | | | | | | |
|---|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Hazardous waste disposed | kg | 1,09E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Non-hazardous waste disposed | kg | 8,36E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Radioactive waste disposed | kg | 2,87E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Output flows

| Results per 1 m ² door. Wood/aluminum outward patio door 3+1-glass | | | | | | | |
|---|------|----------|----------|----------|----------|----------|----------|
| Indicator | Unit | A1-A3 | C1 | C2 | C3 | C4 | D |
| Components for re-use | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Material for recycling | kg | 2,79E-01 | 0,00E+00 | 0,00E+00 | 5,50E+00 | 0,00E+00 | 0,00E+00 |
| Materials for energy recovery | kg | 2,57E-01 | 0,00E+00 | 0,00E+00 | 1,22E+01 | 0,00E+00 | 0,00E+00 |
| Exported energy, electricity | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy, thermal | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

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

Information on biogenic carbon content

| Results per 1 m ² door. Wood/aluminum outward patio door 3+1-glass | | |
|---|------|----------|
| BIOTIC CARBON CONTENT | Unit | QUANTITY |
| Biogenic carbon content in product | kg C | 5,1 |
| Biogenic carbon content in packaging | kg C | 0,40 |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

Differences versus previous versions

The reason for updating the EPD is because a newer version of EN 15804 has been published. The previous version was made according to EN 15804:2012+A1:2013 while this version is made according to the updated version standard EN 15804:2012+A2:2019.

This EPD contains 18 products (12 windows and 6 doors) out of which 15 products are common with the previous EPD from Svenska Fönster.

The three products are studied and presented in this updated version for the first time are:

- Wood/aluminum inward window 3+1-glass
- Wood/aluminum inward Kipp-dreh window 3+1-glass
- Wood aluminum outward patio door 3+1-glass

The modeled size of the windows and doors is different from the previous EPD. In the previous EPD: the size of windows was then 880x1280 mm² and the size of the doors 880x2080 mm². In this EPD the modeled size of the windows is 1230x1480 mm² while the size of the doors is 1230x2180 mm², as indicated by the PCR (EN 17213) for windows and doors.

The source for generic data from the previous EPD version (Ecoinvent 3.6, 2019) was replaced with Ecoinvent 3.8 (2021) in this EPD version.

The following changes were made concerning the data used for modeling:

- Generic data for modeling window fittings and slide rails instead of EPD-ARG-20160194-IBG1-EN.
- Generic data for modeling flat glass instead of EPD of AGC Glass (NF EN 572-1 NF EN 572-2).
- Data on from the EPD for Insulated Glass Units (IGU) M-EPD-MIG-GB-002036 was used for the IGUs supplied by Press Glass, instead of generic data.

Generic data from Ecoinvent has been updated according to the latest version, Ecoinvent 3.8.

2022-11-14 Version 1.2

Editorial changes: Completed table text for product 2-18 in table "Content information".

2023-03-01 Version 1.3

Editorial changes: Updated layout

References

Anna Pantze, Carmen Cristescu, Tyréns AB. Livscykelanalys (LCA) fönster och fönsterdörrar. Tyréns Sverige AB, projekt 316423, 2022-04-14

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

General Programme Instructions of the International EPD® System. Version 3.01.

PCR 2019:14 Construction products (EN 15804:A2) (1.11)

PCR 2019:14-c-PCR-007 Windows and doors (EN 17213) (2020-04-09)



Svenska
Fönster 

The logo for Svenska Fönster features the company name in a white, sans-serif font. To the right of the text is a circular logo containing a stylized white graphic that resembles a window frame or a cross with a curved line through it.