

# ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804+A2

|                          |                                      |
|--------------------------|--------------------------------------|
| Owner of the Declaration | JANSEN AG                            |
| Publisher                | Institut Bauen und Umwelt e.V. (IBU) |
| Programme holder         | Institut Bauen und Umwelt e.V. (IBU) |
| Declaration number       | EPD-JAN-20240296-CBA1-EN             |
| Issue date               | 29.11.2024                           |
| Valid to                 | 28.11.2029                           |

**Jansen-Economy 60 door width x height: 1230 mm x 2180 mm**  
**Jansen AG**

[www.ibu-epd.com](http://www.ibu-epd.com) | <https://epd-online.com>



## General Information

### Jansen AG

#### Programme holder

IBU – Institut Bauen und Umwelt e.V.  
Hegelplatz 1  
10117 Berlin  
Germany

#### Declaration number

EPD-JAN-20240296-CBA1-EN

#### This declaration is based on the product category rules:

Windows and doors , 01.08.2021  
(PCR checked and approved by the SVR)

#### Issue date

29.11.2024

#### Valid to

28.11.2029



Dipl.-Ing. Hans Peters  
(Chairman of Institut Bauen und Umwelt e.V.)



Florian Pronold  
(Managing Director Institut Bauen und Umwelt e.V.)

### Jansen-Economy 60 door width x height: 1230 mm x 2180 mm

#### Owner of the declaration

JANSEN AG  
Industriestrasse 34  
9463 Oberriet  
Switzerland

#### Declared product / declared unit

1 m<sup>2</sup> Jansen-Economy 60 door with a grammage of 30.31 kg/m<sup>2</sup>. The actual reference size of the declared single leaf door has dimensions of width x height: 1230 mm x 2180 mm.

#### Scope:

The environmental product declaration refers to a single leaf door type Jansen-Economy 60 in specific dimension width x height. The characteristic values used for the system components Jansen-Economy 60 in the LCA are provided by Jansen AG.

The declared product is defined according to the profile series and product characteristics.

The location of the production site is Oberriet/ Switzerland.  
This EPD was created with the help of a semi-automatic LCA-Tool.  
The owner of the declaration shall be liable for the underlying information and evidence; the IBU shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

The EPD was created according to the specifications of EN 15804+A2. In the following, the standard will be simplified as *EN 15804*.

#### Verification

The standard EN 15804 serves as the core PCR

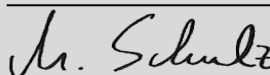
Independent verification of the declaration and data according to ISO 14025:2011

☐

internally

☒

externally



Matthias Schulz,  
(Independent verifier)

## Product

### Product description/Product definition

Jansen-Economy 60 doors, with a basic depth of 60 mm, are suitable for flush-fitted single and double-leaf doors and fixed glazing. The system is suitable for dry and wet glazing and economical and flexible in use. With its minimal basic depth, the complete system can even be flush-fitted in narrow constructions and still guarantee maximum stability. This declaration describes the following element in Jansen-Economy 60:

**Product: Jansen-Economy 60, single leaf door**

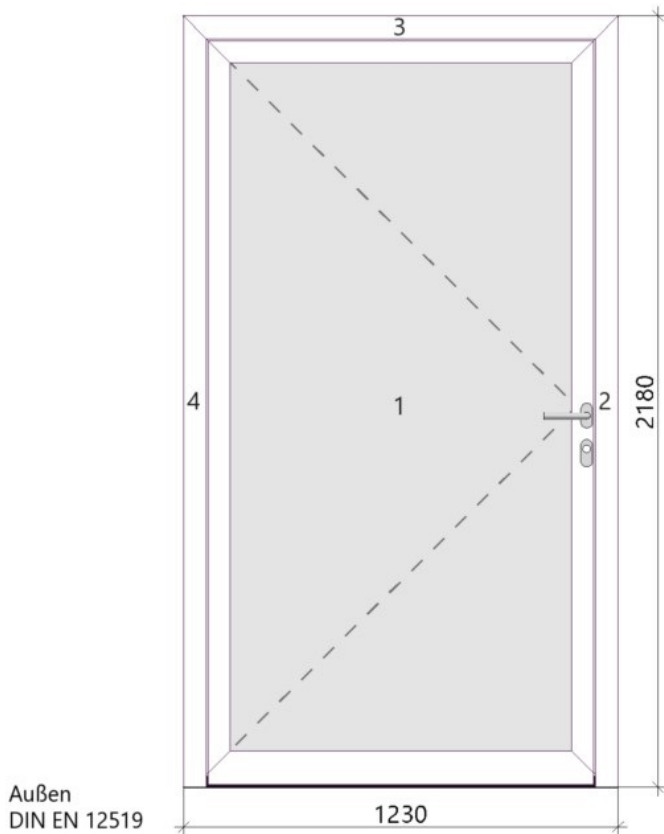
**Face width: 105 mm**

**Construction depth: 60 mm**

**Width x height: 1230 mm x 2180 mm**

**CE marking according to EN 14351-1**

For the placing on the market in the the European Union/European Free Trade Association EU/EFTA the CPR (EU) No. 305/2011/ applies. The products require a declaration of performance taking into account the harmonized product standard *EN 14351-1* windows and doors and a CE marking. The respective national regulations apply to the use. With this declaration the following element is declared:



### Application

The Jansen-Economy 60 door can be integrated for building ventilation and light transmission and it meets all the requirements of an interior or exterior wall without taking over load-bearing functions.

### Technical Data

According to the CE marking, the following structural data for the element must be stated:

### Constructional data

| Name  | Value            | Unit    |
|---|------------------|---------|
| Resistance to wind load acc. to EN 12210                | C5               | class   |
| Water tightness acc. to EN 12208                        | 4A               | class   |
| Sound insulation class according to EN ISO 10140        | Rw 44 db (-2;-5) | -       |
| Heat transfer coefficient acc. to DIN EN ISO 10077-2    | 5.65             | W/(m²K) |
| Air permeability acc. to EN 12207                       | 4                | class   |
| Classification of strength requirements acc. to EN 1192 | 4                | class   |
| Mechanical durability acc. to EN 12400                  | 8                | class   |
| Operating forces acc. to EN 12217                       | 2                | class   |
| Burglar protection class acc. to EN 1627                | 3                | class   |
| Bullet proofing acc. to EN 1522                         | 1-6              | class   |

Product according to the CPR, based on an EN: Performance data of the product in accordance with the declaration of performance with respect to its essential characteristics according to *EN 14351-1*, doors. Other constructional data are not relevant for this product.

### Base materials/Ancillary materials

Jansen-Economy 60 door is made of the following materials:

- Glazing approx. 34%
- Steel approx. 63%
- Plastics and fillers approx. <1%

The percentages relate to the most frequently sold product with an opening of 2.68 m². The percentages stated may vary depending on the product type and dimensions.

Does the product or at least one part product contain materials from the *ECHA candidate list* of materials which are especially problematic for approval: Substances of Very High Concern – SVHC (date 27.06.2024) above a mass % of 0.1: no.

This product/article/at least one partial article contains other carcinogenic, mutagenic, reprotoxic (CMR) substances in categories 1A or 1B which are not on *the candidate list*, exceeding 0.1 percentage by mass: no.

Biocide products were added to this construction product or it has been treated with biocide products (this then concerns a treated product as defined by the (EU) *Ordinance on Biocide Products No. 528/2012*): no.

### Reference service life

According to *SBR 2011* regarding the specific material characteristics of steel windows and doors, the reference service life is 75 years (*SBR 2011*). The practical service life may well be longer. Conditions for a long service life are regular maintenance, care and upkeep of the product. The specified service life is independent of the manufacturer's warranty.

## LCA: Calculation rules

### Declared Unit

The declared unit is a 1 m² of Jansen-Economy 60 door element.

The actual reference size of the declared door element has dimensions of 1230 mm x 2180 mm.

## Declared unit

| Name            | Value | Unit              |
|-----------------|-------|-------------------|
| Declared unit   | 1     | m <sup>2</sup>    |
| Grammage        | 30.31 | kg/m <sup>2</sup> |
| Layer thickness | 0.06  | m                 |

For inhomogeneous components made of different materials, the conversion to other dimensions with factors leads to deviations compared to the exact calculation. The frame percentage is 28.11% and the ground reference is 0.074m<sup>2</sup>.  
 Frame percentage = Frame surface / total area \* 100 [%]  
 Ground reference = Element depth x element width [m<sup>2</sup>]

## System boundary

Type of EPD according to *EN 15804*: "cradle to gate with options, modules C1–C4, and module D". The following modules are declared: A1–A3, C, D and additional modules: A4, A5

## Production (modules A1-A3):

This module considers the provision of all relevant door components (i.e. metal profiles/components, plastic parts/profiles and glazing) and raw materials including their transport to the declared production plant. This considers the manufacturing and assembly of these components, including waste processing up to the end-of-waste state. The impact of packaging materials is also covered by this module.

## Transport to the construction site (module A4):

A distance of 100 km is considered for the transport of the packed finished product via truck. The transport distance can be modified project-specific if required by linear scaling.

## Installation (module A5):

Treatment and disposal of packaging material is considered in this module. Credits for potential avoided burdens due to energy substitution of electricity and thermal energy generation are declared in module D under European conditions and affects only the rate of primary materials (no secondary materials).

## EoL stage (modules C1-C4):

Module C1 - considers manual deconstruction (without environmental burdens).

Module C2 - considers 50 km truck transport to waste processing. The transport distance can be modified project-specific if required by linear scaling.

Modules C3 and C4 - consider waste processing and/or disposal with the following scenarios:

- Scenario 0: 100% thermal treatment of all raw materials with heating value including plastic system parts and 100% recycling of metal system components (C3). Landfill of all materials without heating value (except metals) including glazing (C4). For mineral based components (i.e. gypsum board), construction waste processing (shredding) and material recycling as filling material (incl. benefits for substitution of gravel in Module D) is considered, assuming 3% recycling losses are sent to landfill (C4).
- Scenario 1 (module C3/1): 100% recycling of plastic system parts (excluding e-waste sent to incineration) and 100% recycling of metal system components. Landfill of all materials without heating value (except metals) including glazing (C4/1). For mineral based components (i.e. gypsum board), construction waste processing (shredding) and material recycling as filling material (incl. benefits for substitution of gravel in Module D/1) are considered, assuming 3% recycling losses are sent to landfill (C4/1).

Modules C4 & C4/1 are identical.

## Benefits and loads beyond the product system boundary (module D):

Considers credits and loads from the recycling of the metal components and mineral based components (i.e. gypsum board) as filling material (incl. benefits for the substitution of gravel (duplicated in D and D/1) and the recycling of the plastic system parts/profiles (D/1). Avoided burdens from the thermal treatment of all raw materials with heating value (including plastic system parts/profiles) (D) and packaging treatment (duplicated in D and D/1) under European conditions are considered. This affects only the rate of primary materials (no secondary materials).

## Geographic Representativeness

Land or region, in which the declared product system is manufactured, used or handled at the end of the product's lifespan: Europe

## Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to *EN 15804* and the building context, respectively the product-specific characteristics of performance, are taken into account. The following background database has been used for the LCA calculation: Sphera LCA software (*GaBi ts*) content update package (CUP) version 2022.2

## LCA: Scenarios and additional technical information

### Characteristic product properties of biogenic carbon

No biogenic carbon is reported in the product. The biogenic carbon content in the accompanying packaging for 1 m<sup>2</sup> Jansen-Economy 60 door is declared below.

### Information on describing the biogenic Carbon Content at factory gate

| Name  | Value  | Unit |
|---|--------|------|
| Biogenic carbon content in product                | -      | kg C |
| Biogenic carbon content in accompanying packaging | 0.0111 | kg C |

Note: 1 kg of biogenic carbon is equivalent to 44/12 kg of CO<sub>2</sub>.

The following technical information is a basis for the declared modules. The values refer to the declared unit of 1 m<sup>2</sup> of Jansen-Economy 60 door.



#### Transport to the building site (A4)

| Name  | Value | Unit    |
|---|-------|---------|
| Litres of fuel                              | 0.056 | l/100km |
| Transport distance                          | 100   | km      |
| Capacity utilisation (including empty runs) | 61    | %       |
| Gross weight of packed products transported | 30.34 | kg      |

#### Installation into the building (A5)

Treatment and disposal of packaging material is considered in this module.

The values refer to the declared unit of 1 m<sup>2</sup> of Jansen-Economy 60 door.

| Name  | Value   | Unit |
|---|---------|------|
| Polyethylene (waste packaging to incineration)  | 0.00238 | kg   |
| Cardboard box (waste packaging to incineration) | 0.01141 | kg   |
| Wood (waste packaging to incineration)          | 0.01504 | kg   |

According to *SBR 2011* regarding the specific material characteristics of steel windows and doors, the reference service life is 75 years (*SBR 2011*). The practical service life may well be longer. Conditions for a long service life are regular maintenance, care and upkeep of the product. The specified service life is independent of the manufacturer's warranty.

#### Reference service life

| Name                              | Value | Unit |
|-----------------------------------|-------|------|
| Life Span (according to SBR 2011) | 75    | a    |

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

For the End-of-Life stage two scenarios are considered. Scenario 0 considers 100% thermal treatment of all raw materials with heating value including plastic system parts and 100% recycling of metal system components (C3). Landfill of all materials without heating value (except metals) including glazing (C4). For mineral based components (i.e. gypsum board), construction waste processing (shredding) and material recycling as filling material (incl. benefits for substitution of gravel in Module D) are considered, assuming 3% recycling losses are sent to landfill (C4).

Scenario 1 considers 100% recycling of plastic system parts (excluding e-waste sent to incineration) and 100% recycling of metal system components (C3/1). Landfill of all materials without heating value (except metals) including glazing (C4/1). For mineral based components (i.e. gypsum board), construction waste processing (shredding) and material recycling as filling material (incl. benefits for substitution of gravel in Module D/1) are considered, assuming 3% recycling losses are sent to landfill (C4/1). Modules C4 and C4/1 are identical. The recycling of plastics scenario declared in this EPD is currently considered a scenario that is not widely available in reality due to economic viability limitations associated with higher costs of sorting smaller shares of plastics such as those present in the declared product.

| Name   | Value | Unit |
|--|-------|------|
| End of life scenario 0 (modules C3 and C4)     |       |      |
| Recycling (C3)                                 | 19.28 | kg   |
| Energy recovery (C3)                           | -     | kg   |
| Landfilling (C4)                               | 11.01 | kg   |
| End of life scenario 1 (modules C3/1 and C4/1) |       |      |
| Recycling (C3/1)                               | 19.28 | kg   |
| Energy recovery (C3/1)                         | -     | kg   |
| Landfilling (C4/1)                             | 11.01 | kg   |

#### Reuse, recovery and/or recycling potentials (D), relevant scenario information

Module D includes the credits and loads from the recycling of the metal components and mineral based components (i.e. gypsum board) as filling material (incl. benefits for substitution of gravel (duplicated in D and D/1) and the recycling of the plastic system parts/profiles (D/1). Avoided burdens from the thermal treatment of all raw materials with heating value (including plastic system parts/profiles) (D) and packaging treatment (duplicated in D and D/1) under European conditions are considered. This affects only the rate of primary materials (no secondary materials). A waste incineration plant with R1-value > 0.6 is assumed.

For recycling, a collection rate of 100% is considered.

## LCA: Results

Results provided in this section are presented in relation to 1 m<sup>2</sup> of door type Jansen-Economy 60 door (reference dimensions 1230 mm x 2180 mm).

For the End-of-Life stage, two scenarios are considered:

C3 - considers 100% recycling of metal system components (duplicated in D and D/1) and 100% thermal treatment of all raw materials with heating value including plastic system parts. For mineral based components (i.e. gypsum board), construction waste processing (shredding) and material recycling as filling material is considered.

C3/1 - considers 100% recycling of metal system components (duplicated in D and D/1) and 100% recycling of plastic system parts (excluding e-waste sent to incineration). For mineral based components (i.e. gypsum board), construction waste processing (shredding) and material recycling as filling material is considered.

C4 and C4/1 - consider landfill of all materials without heating value (except metals) including glazing and recycling losses from mineral based components (i.e. gypsum board). Modules C4 and C4/1 are identical.

D - considers credits and loads from the recycling of the metal components and mineral based components (i.e. gypsum board) as filling material (incl. benefits for the substitution of gravel (duplicated in D and D/1). Avoided burdens from packaging treatment (duplicated in D and D/1) and thermal treatment of all raw materials with heating value (including plastic system parts/profiles) are considered.

D/1 - considers credits and loads from the recycling of the metal components and mineral based components (i.e. gypsum board) as filling material (incl. benefits for the substitution of gravel (duplicated in D and D/1) and the recycling of the plastic system parts/profiles. Avoided burdens from packaging treatment (duplicated in D and D/1) are considered.

**DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE OR INDICATOR NOT DECLARED; MNR = MODULE NOT RELEVANT)**

| Product stage       |           |               | Construction process stage          |          | Use stage |             |        |             |               |                        |                       | End of life stage          |           |                  |          | Benefits and loads beyond the system boundaries |
|---------------------|-----------|---------------|-------------------------------------|----------|-----------|-------------|--------|-------------|---------------|------------------------|-----------------------|----------------------------|-----------|------------------|----------|---|
| Raw material supply | Transport | Manufacturing | Transport from the gate to the site | Assembly | Use       | Maintenance | Repair | Replacement | Refurbishment | Operational energy use | Operational water use | De-construction demolition | Transport | Waste processing | Disposal | Reuse-Recovery-Recycling-potential              |
| A1                  | A2        | A3            | A4                                  | A5       | B1        | B2          | B3     | B4          | B5            | B6                     | B7                    | C1                         | C2        | C3               | C4       | D   |
| X                   | X         | X             | X                                   | X        | MND       | MND         | MNR    | MNR         | MNR           | X                      | MND                   | X                          | X         | X                | X        | X   |

### RESULTS OF THE LCA - ENVIRONMENTAL IMPACT according to EN 15804+A2: 1 m<sup>2</sup> Jansen-Economy 60 door (30.31 kg/m<sup>2</sup>)

| Parameter      | Unit                             | A1-A3    | A4       | A5       | B6 | C1 | C2       | C3 | C3/1 | C4       | C4/1     | D         | D/1       |
|----------------|----------------------------------|----------|----------|----------|----|----|----------|----|------|----------|----------|-----------|-----------|
| GWP-total      | kg CO <sub>2</sub> eq            | 4.86E+01 | 1.83E-01 | 4.84E-02 | 0  | 0  | 9.15E-02 | 0  | 0    | 1.65E-01 | 1.65E-01 | -1.61E+01 | -1.61E+01 |
| GWP-fossil     | kg CO <sub>2</sub> eq            | 4.85E+01 | 1.81E-01 | 8.24E-03 | 0  | 0  | 9.06E-02 | 0  | 0    | 1.64E-01 | 1.64E-01 | -1.61E+01 | -1.61E+01 |
| GWP-biogenic   | kg CO <sub>2</sub> eq            | 6.66E-02 | 7.65E-04 | 4.01E-02 | 0  | 0  | 3.82E-04 | 0  | 0    | 5.53E-04 | 5.53E-04 | 8.18E-03  | 8.18E-03  |
| GWP-luluc      | kg CO <sub>2</sub> eq            | 1.54E-02 | 1.01E-03 | 1.31E-07 | 0  | 0  | 5.06E-04 | 0  | 0    | 3.03E-04 | 3.03E-04 | -3.34E-04 | -3.34E-04 |
| ODP            | kg CFC11 eq                      | 7.76E-11 | 1.09E-14 | 4.16E-15 | 0  | 0  | 5.44E-15 | 0  | 0    | 3.86E-13 | 3.86E-13 | -1.18E-13 | -1.18E-13 |
| AP             | mol H <sup>+</sup> eq            | 1.67E-01 | 1.73E-04 | 9.06E-06 | 0  | 0  | 8.64E-05 | 0  | 0    | 1.16E-03 | 1.16E-03 | -3.47E-02 | -3.47E-02 |
| EP-freshwater  | kg P eq                          | 3.85E-05 | 5.42E-07 | 1.12E-09 | 0  | 0  | 2.71E-07 | 0  | 0    | 2.78E-07 | 2.78E-07 | -2.94E-06 | -2.94E-06 |
| EP-marine      | kg N eq                          | 4.94E-02 | 5.38E-05 | 3.04E-06 | 0  | 0  | 2.69E-05 | 0  | 0    | 2.98E-04 | 2.98E-04 | -6.1E-03  | -6.1E-03  |
| EP-terrestrial | mol N eq                         | 5.71E-01 | 6.46E-04 | 4.2E-05  | 0  | 0  | 3.23E-04 | 0  | 0    | 3.27E-03 | 3.27E-03 | -5.36E-02 | -5.36E-02 |
| POCP           | kg NMVOC eq                      | 1.42E-01 | 1.51E-04 | 8.18E-06 | 0  | 0  | 7.53E-05 | 0  | 0    | 9.05E-04 | 9.05E-04 | -2.47E-02 | -2.47E-02 |
| ADPE           | kg Sb eq                         | 5.42E-05 | 1.52E-08 | 1.02E-10 | 0  | 0  | 7.59E-09 | 0  | 0    | 1.68E-08 | 1.68E-08 | -4.02E-05 | -4.02E-05 |
| ADPF           | MJ                               | 5.03E+02 | 2.43E+00 | 1.14E-02 | 0  | 0  | 1.21E+00 | 0  | 0    | 2.15E+00 | 2.15E+00 | -1.48E+02 | -1.48E+02 |
| WDP            | m <sup>3</sup> world eq deprived | 2.96E+00 | 1.63E-03 | 5.51E-03 | 0  | 0  | 8.14E-04 | 0  | 0    | 1.8E-02  | 1.8E-02  | -3E+00    | -3E+00    |

GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential of land and water; EP = Eutrophication potential; POCP = Formation potential of tropospheric ozone photochemical oxidants; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources; WDP = Water (user) deprivation potential)

### RESULTS OF THE LCA - INDICATORS TO DESCRIBE RESOURCE USE according to EN 15804+A2: 1 m<sup>2</sup> Jansen-Economy 60 door (30.31 kg/m<sup>2</sup>)

| Parameter | Unit | A1-A3    | A4       | A5        | B6 | C1 | C2       | C3 | C3/1 | C4       | C4/1     | D         | D/1       |
|-----------|------|----------|----------|-----------|----|----|----------|----|------|----------|----------|-----------|-----------|
| PERE      | MJ   | 5.72E+01 | 1.38E-01 | 4.01E-01  | 0  | 0  | 6.89E-02 | 0  | 0    | 3.23E-01 | 3.23E-01 | 9.28E+00  | 9.28E+00  |
| PERM      | MJ   | 3.98E-01 | 0        | -3.98E-01 | 0  | 0  | 0        | 0  | 0    | 0        | 0        | 0         | 0         |
| PERT      | MJ   | 5.76E+01 | 1.38E-01 | 2.62E-03  | 0  | 0  | 6.89E-02 | 0  | 0    | 3.23E-01 | 3.23E-01 | 9.28E+00  | 9.28E+00  |
| PENRE     | MJ   | 5.05E+02 | 2.43E+00 | 1.21E-01  | 0  | 0  | 1.22E+00 | 0  | 0    | 2.15E+00 | 2.15E+00 | -1.48E+02 | -1.48E+02 |
| PENRM     | MJ   | 1.1E-01  | 0        | -1.1E-01  | 0  | 0  | 0        | 0  | 0    | 0        | 0        | 0         | 0         |
| PENRT     | MJ   | 5.05E+02 | 2.43E+00 | 1.14E-02  | 0  | 0  | 1.22E+00 | 0  | 0    | 2.15E+00 | 2.15E+00 | -1.48E+02 | -1.48E+02 |

|      |                |          |          |         |   |   |         |   |   |          |          |           |           |
|------|----------------|----------|----------|---------|---|---|---------|---|---|----------|----------|-----------|-----------|
| SM   | kg             | 1.05E+01 | 0        | 0       | 0 | 0 | 0       | 0 | 0 | 0        | 0        | 9.32E+00  | 9.32E+00  |
| RSF  | MJ             | 0        | 0        | 0       | 0 | 0 | 0       | 0 | 0 | 0        | 0        | 0         | 0         |
| NRSF | MJ             | 0        | 0        | 0       | 0 | 0 | 0       | 0 | 0 | 0        | 0        | 0         | 0         |
| FW   | m <sup>3</sup> | 1.07E-01 | 1.56E-04 | 1.3E-04 | 0 | 0 | 7.8E-05 | 0 | 0 | 5.47E-04 | 5.47E-04 | -6.78E-02 | -6.78E-02 |

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

## RESULTS OF THE LCA – WASTE CATEGORIES AND OUTPUT FLOWS according to EN 15804+A2:

1 m<sup>2</sup> Jansen-Economy 60 door (30.31 kg/m<sup>2</sup>)

| Parameter | Unit | A1-A3    | A4       | A5       | B6 | C1 | C2       | C3       | C3/1     | C4       | C4/1     | D         | D/1       |
|-----------|------|----------|----------|----------|----|----|----------|----------|----------|----------|----------|-----------|-----------|
| HWD       | kg   | 3.9E-08  | 1.16E-11 | 1.12E-12 | 0  | 0  | 5.82E-12 | 0        | 0        | 1.11E-10 | 1.11E-10 | -1.17E-09 | -1.17E-09 |
| NHWD      | kg   | 1.36E+00 | 3.48E-04 | 7.32E-04 | 0  | 0  | 1.74E-04 | 0        | 0        | 1.1E+01  | 1.1E+01  | 2.25E+00  | 2.25E+00  |
| RWD       | kg   | 1.45E-02 | 2.99E-06 | 6.52E-07 | 0  | 0  | 1.5E-06  | 0        | 0        | 2.4E-05  | 2.4E-05  | 1.97E-06  | 1.97E-06  |
| CRU       | kg   | 0        | 0        | 0        | 0  | 0  | 0        | 0        | 0        | 0        | 0        | 0         | 0         |
| MFR       | kg   | 5.78E-01 | 0        | 0        | 0  | 0  | 0        | 1.93E+01 | 1.93E+01 | 0        | 0        | 0         | 0         |
| MER       | kg   | 0        | 0        | 0        | 0  | 0  | 0        | 0        | 0        | 0        | 0        | 0         | 0         |
| EEE       | MJ   | 0        | 0        | 5.53E-02 | 0  | 0  | 0        | 0        | 0        | 0        | 0        | 0         | 0         |
| EET       | MJ   | 0        | 0        | 9.9E-02  | 0  | 0  | 0        | 0        | 0        | 0        | 0        | 0         | 0         |

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy

## RESULTS OF THE LCA – additional impact categories according to EN 15804+A2-optional:

1 m<sup>2</sup> Jansen-Economy 60 door (30.31 kg/m<sup>2</sup>)

| Parameter | Unit              | A1-A3    | A4       | A5       | B6 | C1 | C2       | C3 | C3/1 | C4       | C4/1     | D         | D/1       |
|-----------|-------------------|----------|----------|----------|----|----|----------|----|------|----------|----------|-----------|-----------|
| PM        | Disease incidence | 1.56E-06 | 1.04E-09 | 4.76E-11 | 0  | 0  | 5.22E-10 | 0  | 0    | 1.43E-08 | 1.43E-08 | -4.9E-07  | -4.9E-07  |
| IR        | kBq U235 eq       | 2.36E+00 | 4.39E-04 | 1.06E-04 | 0  | 0  | 2.19E-04 | 0  | 0    | 2.66E-03 | 2.66E-03 | 3.6E-01   | 3.6E-01   |
| ETP-fw    | CTUe              | 7.42E+02 | 1.68E+00 | 5.25E-03 | 0  | 0  | 8.42E-01 | 0  | 0    | 1.21E+00 | 1.21E+00 | -9.17E+00 | -9.17E+00 |
| HTP-c     | CTUh              | 3.7E-08  | 3.39E-11 | 3.45E-13 | 0  | 0  | 1.7E-11  | 0  | 0    | 1.84E-10 | 1.84E-10 | -6.6E-09  | -6.6E-09  |
| HTP-nc    | CTUh              | 6.49E-07 | 1.76E-09 | 1.29E-11 | 0  | 0  | 8.78E-10 | 0  | 0    | 2.04E-08 | 2.04E-08 | -2.18E-07 | -2.18E-07 |
| SQP       | SQP               | 5.02E+01 | 8.35E-01 | 3.31E-03 | 0  | 0  | 4.17E-01 | 0  | 0    | 4.48E-01 | 4.48E-01 | 1.75E+00  | 1.75E+00  |

PM = Potential incidence of disease due to PM emissions; IR = Potential Human exposure efficiency relative to U235; ETP-fw = Potential comparative Toxic Unit for ecosystems; HTP-c = Potential comparative Toxic Unit for humans (cancerogenic); HTP-nc = Potential comparative Toxic Unit for humans (not cancerogenic); SQP = Potential soil quality index

Disclaimer 1 – for the indicator 'Potential Human exposure efficiency relative to U235'. This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure or radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

Disclaimer 2 – for the indicators 'abiotic depletion potential for non-fossil resources', 'abiotic depletion potential for fossil resources', 'water (user) deprivation potential, deprivation-weighted water consumption', 'potential comparative toxic unit for ecosystems', 'potential comparative toxic unit for humans – cancerogenic', 'Potential comparative toxic unit for humans - not cancerogenic', 'potential soil quality index'. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high as there is limited experience with the indicator. This EPD was created using a software tool.

## References

### Standards

#### EN 14351-1

EN 14351-1:2016, Windows and doors - Product standard, performance characteristics - Part 1: windows and external pedestrian doorsets

#### EN 16034

EN 16034:2014, pedestrian doorsets, industrial, commercial, garage doors and openable windows - Product standard, performance characteristics - Fire resistance and/or smoke control characteristics

#### EN 15804

EN 15804:2012+A2:2019+AC:2021, Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products.

#### ISO 14025

EN ISO 14025:2011, Environmental labels and declarations — Type III environmental declarations — Principles and

procedures.

#### EN 12210

EN 12210: 2016 Windows and doors - Resistance to wind loads - classification

#### EN 12208

DIN EN 12208 Windows and doors - Watertightness - Classification

#### EN ISO 10140

EN ISO 10140-1: 2021 Acoustics - Laboratory measurement of sound insulation of building elements - Part 1: Application rules for specific products

#### DIN EN ISO 10077-2

DIN EN ISO 10077-2: 2017 Thermal performance of windows, doors and shutters - Calculation of thermal transmittance - Part 2: Numerical method for frames

#### EN 12207

EN 12207: 2016 Windows and doors - Air permeability - Classification

#### **EN 1192**

EN 1192: 2000 Doors - Classification of strength requirements

#### **EN 1191**

EN 1191: 2012 Windows and doors - Resistance to repeated opening and closing - Test method

#### **EN 1603**

DIN EN 1603:2013-05 Thermal insulating products for building applications - Determination of dimensional stability under constant normal laboratory conditions

#### **EN 13115**

EN 13115: 2020 Windows - Classification of mechanical properties - Racking, torsion and operating forces.

#### **DIN EN 1634-1**

DIN EN 1634-1 Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware - Part 1: Fire resistance test for door and shutter assemblies and openable windows

#### **EN 13501-2**

EN 13501-2: 2021 Fire classification of construction products and building elements - Part 2: Classification using data from fire resistance and/or smoke control tests, excluding ventilation services

#### **EN 1627**

DIN EN 1627:2011-09 Pedestrian doorsets, windows, curtain walling, grilles and shutters - Burglar resistance - Requirements and classification

#### **ECHA candidate list**

ECHA candidate list [BSJ1] - Substances of Very High Concern– SVHC (date 27.06.2024)

Candidate List of substances of very high concern for Authorisation (published in accordance with Article 59(10) of the REACH Regulation) REGULATION (EU) No 528/2012 REGULATION (EU) No 528/2012 OF THE

EUROPEAN PARLIAMENT AND OF THE COUNCIL, of 22 May 2012, concerning the making available on the market and use of biocidal products

#### **SBR 2011**

SBR life cycle guide [SBR 2011]

#### **Further References**

##### **Sphera LCA FE Software (GaBi ts)**

GaBi ts dataset documentation for the software-system and databases, LBP, University of Stuttgart and thinkstep, Leinfelden-Echterdingen, 2023 (<https://www.gabi-software.com/support/gabi>)

##### **Sphera LCA Calculator Software (GaBi Envision)**

GaBi Envision 5.0 Sphera Solution GmbH, the LCA, EPD and Ecodesign tool, <http://www.gabi-software.com/international/software/gabi-envision/>, 2022

##### **Jansen LCA tool**

LCA tool for façades, windows & door  
LCA-Tool No.: IBU-JAN-202301-LT1-EN  
Developed by Sphera Solutions GmbH

##### **IBU 2021**

Institut Bauen und Umwelt e.V.: General Instructions for the EPD programme of Institut Bauen und Umwelt e.V., Version 2.0, Berlin: Institut Bauen und Umwelt e.V., 2021

[www.ibu-epd.com](http://www.ibu-epd.com)

##### **PCR Part A**

PCR - Part A: Calculation rules for the Life Cycle Assessment and Requirements on the Background Report, version 1.3, Institut Bauen und Umwelt e.V., 08-2021.

##### **PCR Part B**

PCR – Part B: Requirements on the EPD for Windows and doors, version 1.6, Institut Bauen und Umwelt e.V., 2022



**Publisher**

Institut Bauen und Umwelt e.V.  
Hegelplatz 1  
10117 Berlin  
Germany

+49 (0)30 3087748- 0  
[info@ibu-epd.com](mailto:info@ibu-epd.com)  
[www.ibu-epd.com](http://www.ibu-epd.com)

---

**Programme holder**

Institut Bauen und Umwelt e.V.  
Hegelplatz 1  
10117 Berlin  
Germany

+49 (0)30 3087748- 0  
[info@ibu-epd.com](mailto:info@ibu-epd.com)  
[www.ibu-epd.com](http://www.ibu-epd.com)

---

**Author of the Life Cycle Assessment**

Sphera Solutions GmbH  
Hauptstraße 111- 113  
70771 Leinfelden-Echterdingen  
Germany

+49 (0)711 341817-0  
[info@sphera.com](mailto:info@sphera.com)  
[www.sphera.com](http://www.sphera.com)

---

**Owner of the Declaration**

JANSEN AG  
Industriestrasse 34  
9463 Oberriet  
Switzerland

0041717639113  
[sustainability@jansen.com](mailto:sustainability@jansen.com)  
[www.jansen.com](http://www.jansen.com)