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Environmental Product Declaration Type III (EPD) ITB number 316/2022

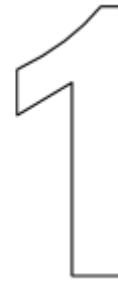
## Steel non fire resistant doors DFM DS00 and Steel fire resistant doors DFM DS30, DFM DS60, DFM DS120

EPD owner:  
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# Basic Information



This declaration is a Type III Environmental Product Declaration (EPD) based on the EN 15804 standard and verified according to ISO 14025 by an independent auditor.

It contains information about the environmental impact of the declared construction materials. These aspects have been verified by an independent body in accordance with ISO 14025. In principle, a comparison or evaluation of EPD data is only possible if all data to be compared have been created in accordance with EN 15804 (see section 5.3 of the standard).

**LCA analysis:** A1 - A3, A4, A5 according to EN 15804 (cradle to grave with options)  
**Year of EPD development:** 2022  
**Product standards:** PN-EN 14351-1+A2-10, PN-EN 1634-1+A1-03, EN 1125  
**Declared product lifetime:** 20 years (declared by producent)  
**PCR:** document ITB-PCR A (based on PN-EN 15804)  
**Declared unit:** one piece of a complete product of defined mass  
**Reason for implementation:** B2B  
**Representativeness:** Polish products, 2021

## Manufacturer

DFM Doors sp. z o.o., based in Gdańsk, specializes in the field of fire barriers



The comprehensive offer of the company consists of: innovative steel fire resistant and non fire resistant doors, fire resistant steel sliding and swing gates, steel profile door and wall systems.

DFM is a brand created by a team of specialists with 20 years of experience, who focus their attention on high quality production and product functionality. It offers products according to individual customer specifications

All products covered by this study are manufactured at the production plant of DFM Doors sp. z o.o. in Opole, Opole region. Finished products are stored in the plant and then transported to customers.



## Description of products and application



DFM DS steel doors are designed for use as external or internal closures where environmental characteristics and features to support sustainability, aesthetics, product durability and strength are key. Doors from the extensive DFM DS range provide declared fire resistance classes, have high durability and mechanical strength and may have acoustic insulation. Additionally, selected door types are characterised by above-average values of thermal insulation for complete door sets. Doors are manufactured as solid or glazed and/or with ventilation grilles. They are designed to ensure easy and quick assembly.

The door leaves are equipped in basic version with minimum two stainless steel hinges, anti-theft bolt, latch-deadbolt lock, cylinder, set of stainless steel handles, intumescent and/or rubber gaskets, automating bolting of passive door leaf in case of double doors. The door can be additionally equipped with automatic dropping gaskets (including acoustic or smoke-proof), thresholds, special locks, anti-panic, electric or burglar-proof locks, electric strikes and other access control elements, other handles, knobs or anti-panic levers. The door can also be equipped with additional elements: door closers, electromagnetic hold-open devices, closing magnets, actuators, kick plates, bumpers.

### Steel non fire resistant doors, type DFM DS00

DFM DS00 steel doors without fire resistance are manufactured as thick rebated and pressed from two 0.75 mm thick steel sheets or optionally from 0.88 mm sheet. They can be manufactured as single- or double-leaf. The filling of the leaves is mineral wool 63 mm thick with a density of 120 kg/m<sup>3</sup>. Door leaves up to the door height of 2500 mm are hung on two stainless steel hinges in the frame made of extruded aluminium profiles. The total thickness of the leaf is 65 mm.

The DFM DS00 door is available as a full or glazed version, with a maximum size of 1250 x 2500 mm for single leaf doors and 2500 x 2500 mm for double leaf doors. For the calculations two types of doors with the following dimensions were assumed:

- DFM DS00-1 with dimensions 980 x 2040 mm,
- DFM DS00-2 with dimensions 1920 x 2040 mm.



## Steel fire resistant doors, class EI<sub>2</sub>30, type DFM DS30

**DFM DS30 steel doors** in fire resistance class EI<sub>2</sub>30 are manufactured as rebated doors with thick rebates and pressed from two 0.75 mm thick steel sheets or optionally from 0.88 mm sheet. They can be manufactured as single- or double-leaf. The filling of the leaves is mineral wool 63 mm thick with a density of 120 kg/m<sup>3</sup>. Door leaves up to the door height of 2500 mm are hung on two stainless steel hinges in the frame made of extruded aluminium profiles. Total thickness of the leaf is 65 mm. The door is equipped with intumescent seals.

The door DFM DS30 is available as a full or glazed door in two types, where the maximum dimension of a single leaf door is 1250 x 2500 mm and maximum dimension of a double leaf door is 2500 x 2500 mm. Two types of doors with the following dimensions were used in the calculations:

- DFM DS30-1 with dimensions 980 x 2040 mm,
- DFM DS30-2 with dimensions 1920 x 2040 mm.

## Steel fire resistant doors, class EI<sub>2</sub>60, type DFM DS60

**DFM DS60 steel doors** in fire resistance class EI<sub>2</sub>60 are manufactured as rebated doors with thick rebates and pressed from two 0.75 mm thick steel sheets or optionally from 0.88 mm sheet. They can be manufactured as single- or double-leaf. The filling of the leaves consists of 2 mineral wool panels with a total thickness of 63 mm and a density of 140 kg/m<sup>3</sup>. Door leaves up to door height of 2500 mm are hung on two stainless steel hinges in the frame made of extruded aluminium profiles. Total thickness of the leaf is 65 mm. The door is equipped with intumescent seals.

The DMF DS60 door is available as a full or glazed door in two types, where the maximum dimension of a single-leaf door is 1250 x 2500 mm, and a double-leaf 2500 x 2500 mm. Two types of doors with the following dimensions have been assumed for the calculations:

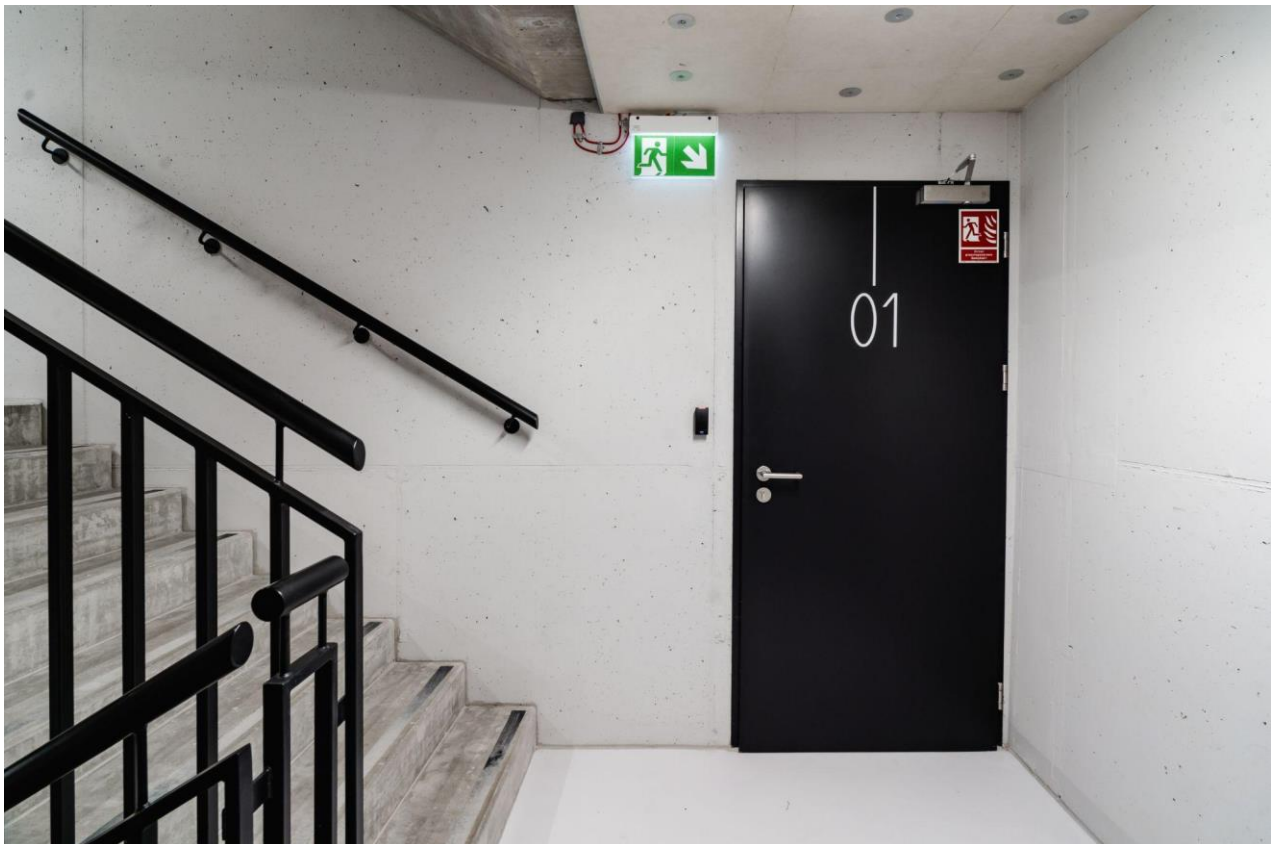
- DFM DS60-1 with dimensions 940 x 2040 mm,
- DFM DS60-2 with dimensions 1920 x 2040 mm.

## Steel fire resistant doors, class EI<sub>2</sub>120, type DFM DS120

DFM DS120 steel doors in fire resistance class EI<sub>2</sub>120 are manufactured as thick rebated and pressed from two 0.75 mm thick steel sheets. They can be manufactured as single or double leaf. The leaves are filled with 2 mineral wool panels with a total thickness of 63 mm and density of 140 kg/m<sup>3</sup>, additionally reinforced with steel profiles. Door leaves up to door height of 2500 mm are hung on two stainless steel hinges in steel frame. Total thickness of the door leaf is 65 mm. The door is equipped with intumescent seals.

The door DFM DS120 is available as a solid or glazed door in two types, maximum dimension of a single leaf door is 1250 x 2500 mm and maximum dimension of a double leaf door is 2250 x 2350 mm. Two types of doors with the following dimensions have been assumed for the calculations:

- DFM DS120-1 with dimensions 990 x 2040 mm,
- DFM DS120-2 with dimensions 1940 x 2040 mm.



## Overview of door type properties

Fire resistance class	Model	Type	Dimensions [mm]	Sound insulation index Rw [dB]	Thermal insulation [W/m <sup>2</sup> K]	Mass [kg]	Frame type	Type of glazing
-	DS00-1	Solid	980 x 2040	36	0.92	56.6	Aluminium	-
		Glazed	980 x 2040	36	0.92	58.7	Aluminium	Safety min. thickness 8.8 mm
	DS00-2	Solid	1920 x 2040	36	1.10	106.6	Aluminium	-
		Glazed	1920 x 2040	36	1.10	110.2	Aluminium	Safety min. thickness 8.8 mm
EI 30	DS30-1	Solid	980 x 2040	35	0.92	57.8	Aluminium	-
		Glazed	980 x 2040	35	0.92	62.5	Aluminium	Fireproof min. thickness 16 mm
	DS30-2	Solid	1920 x 2040	36	1.1	113.3	Aluminium	-
		Glazed	1920 x 2040	36	1.1	122.0	Aluminium	Fireproof min. thickness 16 mm
EI 60	DS60-1	Solid	940 x 2040	37	0.92	64.4	Aluminium	-
		Glazed	940 x 2040	37	0.92	74.4	Aluminium	Fireproof min. thickness 27 mm
	DS60-2	Solid	1920 x 2040	36	1.1	118.7	Aluminium	-
		Glazed	1920 x 2040	36	1.1	139.2	Aluminium	Fireproof min. thickness 27 mm
EI 120	DS120-1	Solid	990 x 2040	42	1.3	105.2	Steel	-
		Glazed	990 x 2040	42	1.3	127.7	Steel	Fireproof min. thickness 54-62 mm
	DS120-2	Solid	1940 x 2040	42	1.3	197.8	Steel	-
		Glazed	1940 x 2040	42	1.3	237.8	Steel	Fireproof min. thickness 54-62 mm

# Life cycle assessment (LCA) - general principles



## Declared unit

The declared unit of product is 1 piece of complete product of the given weight, representative for each of the 4 types of doors.

## Allocation

The allocation in this study was made in accordance with the ITB PCR A guidelines. The production of the products covered by this declaration takes place at the production plant of DFM Doors Sp. z o.o. located at 3 Firmowa Street in Opole. The input data and emissions were collected by dividing them into four separate production lines, respectively for each product group. Allocation to a single, representative product was made on the basis of product mass. All impacts from raw material extraction are allocated in module A1. Production of products is based on 100% raw materials. 100% of the receipts from the production lines were inventoried and allocated to the production of products. Module A2 contains transport of aluminium profiles, steel sheet, mineral wool, plasterboard, hinges, fittings, locks, inserts, paints and glass from Polish suppliers to the factory in Opole. Energy, fuel and waste deliveries for the whole production process were inventoried and included in module A3.

## System boundaries

The life cycle analysis of the declared products includes the Product Stage (modules A1 - A3) and distribution stage modules A4, A5 ("from cradle to grave with options") according to EN 15804+A1 and ITB PCR A. All relevant parameters from the

collected data such as materials used in production, electricity, fuels used, waste, available emission measurements are taken into account in the life cycle assessment. It can be assumed that the sum of omitted processes does not exceed 5% of all impact categories.

## Modules A1 and A2 Extraction and transport of raw materials

Resource materials for production and packaging materials (wood, steel and plastic bands, films, paper, cardboard, EPS elements) come from Polish suppliers. The choice of supplier is determined not only by the cost of material and transport distance, but also by the availability of materials, therefore the production plant in Opole is supplied by many suppliers. Data on transport of raw materials is recorded by the factory. Means of transport include trucks. Polish fuel averages have been taken into account in the calculations.

## Module A3 Production

Raw materials such as aluminium profiles, steel sheet, mineral wool, plasterboard are used to manufacture doors. A production diagram dedicated to each product group is shown on pages 14 - 15. A complete production process takes place at the production plant, at the end of which the products are packaged and stored on the plant's site before they are delivered to the customer. Pages 9 - 12 show the composition of the materials used to manufacture representative products for each door type.



Composition of the representative products of the type DFM DS00								
Material/ element	DFM DS00-1				DFM DS00-2			
	Solid		Glazed		Solid		Glazed	
	Mass, kg	Mass share, %	Mass, kg	Mass share, %	Mass, kg	Mass share, %	Mass, kg	Mass share, %
Aluminium profiles	6.2	10.8	6.2	10.5	9.4	8.8	9.4	8.5
Galvanised steel sheet	26.3	46.2	24.9	42.4	52.6	49.3	49.8	45.2
Mineral wool	15.6	27.5	14.0	23.9	31.3	29.3	27.5	25.0
Envelope seal	0.2	0.4	0.2	0.4	0.3	0.2	0.3	0.2
Intumescent seal	-	-	-	-	-	-	-	-
Plasterboard	1.8	3.2	1.8	3.1	1.8	1.7	1.8	1.6
Black metal sheet	2.6	4.5	2.6	4.4	4.9	4.6	4.9	4.4
Polyurethane glue	0.2	0.4	0.2	0.3	0.4	0.4	0.4	0.3
Hinge	0.6	1.0	0.6	1.0	1.2	1.1	1.2	1.1
Fitting	0.6	1.0	0.6	1.0	0.6	0.5	0.6	0.5
Lock	1.0	1.8	0.8	1.3	0.8	0.7	0.8	0.7
Insert	0.3	0.4	0.3	0.4	0.3	0.2	0.3	0.2
Powder coating	1.6	2.9	1.4	2.5	3.2	3.0	2.8	2.6
Glass	-	-	5.3	9.0	-	-	10.6	9.6
<b>Total</b>	<b>56.8</b>	<b>100.0</b>	<b>58.7</b>	<b>100.0</b>	<b>106.6</b>	<b>100.0</b>	<b>110.2</b>	<b>100.0</b>

Composition of the representative products of the type DFM DS30								
Material/ element	DFM DS30-1				DFM DS30-2			
	Solid		Glazed		Solid		Glazed	
	Mass, kg	Mass share, %	Mass, kg	Mass share, %	Mass, kg	Mass share, %	Mass, kg	Mass share, %
Aluminium profiles	6.2	10.7	6.2	9.9	9.4	8.3	9.4	7.7
Galvanised steel sheet	26.3	45.4	24.9	39.8	52.6	46.4	49.8	40.8
Mineral wool	15.6	27.0	14.0	22.5	36.5	32.2	32.1	26.3
Envelope seal	0.2	0.4	0.2	0.4	0.3	0.2	0.3	0.2
Intumescent seal	0.6	1.0	0.6	0.9	0.7	0.6	0.7	0.6
Plasterboard	1.8	3.1	1.8	2.9	1.8	1.6	1.8	1.5
Black metal sheet	2.6	4.4	2.6	4.1	4.9	4.3	4.9	4.0
Collosill Type 635 adhesive	0.4	0.7	0.4	0.6	0.8	0.7	0.8	0.7
Polyurethane glue	0.2	0.4	0.2	0.3	0.4	0.4	0.4	0.3
Hinge	0.6	1.0	0.6	0.9	1.2	1.1	1.2	1.0
Fitting	0.6	1.0	0.6	0.9	0.6	0.5	0.6	0.5
Lock	0.8	1.3	0.6	1.2	0.8	0.7	0.8	0.6
Insert	0.3	0.4	0.3	0.4	0.3	0.2	0.3	0.2
Powder coating	1.9	3.2	1.4	2.3	3.2	2.8	2.8	2.3
Glass	-	-	8.2	13.1	-	-	16.3	13.4
<b>Final total</b>	<b>57.8</b>	<b>100.0</b>	<b>62.5</b>	<b>100.0</b>	<b>113.3</b>	<b>100.0</b>	<b>122.0</b>	<b>100.0</b>

Composition of the representative products of the type DFM DS60								
Material / element	DFM DS60-1				DFM DS60-2			
	Solid		Glazed		Solid		Glazed	
	Mass, kg	Mass share, %	Mass, kg	Mass share, %	Mass, kg	Mass share, %	Mass, kg	Mass share, %
Aluminium profiles	6.2	9.6	6.2	8.3	9.4	7.9	9.4	6.7
Galvanised steel sheet	26.3	40.8	24.9	33.4	52.6	44.3	49.8	35.8
Mineral wool	18.6	28.8	16.4	22.0	36.5	30.7	32.1	23.1
Envelope seal	0.2	0.3	0.2	0.3	0.3	0.2	0.3	0.2
Intumescent seal	0.6	0.9	0.6	0.8	0.7	0.6	0.7	0.5
Plasterboard	3.6	5.6	3.6	4.8	3.6	3.0	3.6	2.6
Black metal sheet	4.4	6.8	4.4	5.9	8.5	7.2	8.5	6.1
Collosill Type 635 adhesive	0.4	0.6	0.4	0.5	0.8	0.7	0.8	0.6
Polyurethane glue	0.2	0.3	0.2	0.2	0.4	0.3	0.4	0.3
Hinge	0.6	0.9	0.6	0.8	1.2	1.0	1.2	0.9
Fitting	0.6	0.9	0.6	0.8	0.6	0.5	0.6	0.4
Lock	0.8	1.2	0.8	1.0	0.8	0.6	0.8	0.5
Insert	0.3	0.4	0.3	0.3	0.3	0.2	0.3	0.2
Powder coating	1.9	2.9	1.4	1.9	3.2	2.7	2.8	2.0
Glass	-	-	14.0	18.9	-	-	28.1	20.2
<b>Final total</b>	<b>64.4</b>	<b>100.0</b>	<b>74.4</b>	<b>100.0</b>	<b>118.7</b>	<b>100.0</b>	<b>139.2</b>	<b>100.0</b>

Composition of the representative products of the type DFM DS120								
Material / element	DFM DS120-1				DFM DS120-2			
	Solid		Glazed		Solid		Glazed	
	Mass, kg	Mass share, %	Mass, kg	Mass share, %	Mass, kg	Mass share, %	Mass, kg	Mass share, %
Steel frame	10.8	10.2	10.8	8.4	13.2	6.6	13.2	5.5
Galvanised steel sheet	27.3	26.0	25.9	20.3	53.1	26.9	50.3	21.2
Mineral wool	8.8	8.3	7.5	5.9	17.3	8.7	14.7	6.2
Envelope seal	0.2	0.2	0.2	0.2	0.3	0.1	0.3	0.1
Intumescent seal	0.6	0.6	0.6	0.5	0.7	0.4	0.7	0.3
Plasterboard	40.5	38.5	38.2	29.9	81.4	41.2	71.8	30.2
Black metal sheet	11.6	11.0	11.6	9.1	22.9	11.6	22.9	9.6
Collosill Type 635 adhesive	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1
Hinge	1.8	1.7	1.8	1.4	3.6	1.8	3.6	1.5
Fitting	0.6	0.5	0.6	0.4	0.6	0.3	0.6	0.2
Lock	0.8	0.7	0.8	0.6	0.8	0.4	0.8	0.3
Insert	0.3	0.2	0.3	0.2	0.3	0.1	0.3	0.1
Powder coating	1.9	1.8	1.8	1.4	3.6	1.8	3.4	1.4
Glass	-	-	27.6	21.6	-	-	55.2	23.2
<b>Final total</b>	<b>105.2</b>	<b>100.0</b>	<b>127.7</b>	<b>100.0</b>	<b>197.8</b>	<b>100.0</b>	<b>237.8</b>	<b>100.0</b>

**Modules A4 and A5 Transport and installation in the building**

Transport to the place of installation takes place from the production plant in Opole, at Firmowa Street 3. Ready doors of DFM DS type are placed horizontally on wooden pallets and packed in quantities of 1-10 pieces per pallet. The company uses customer-supplied wheeled transport adapted to the size of the order: from vans, through medium-dimensional transport to TIRs. Diesel and electric forklifts are used to load the goods. For unloading, machines are used which are available at the recipient's premises (at the construction site, customer's or distributor's storage yard). The most convenient form of transport is wheel transport to the installation site and then unloading directly from the truck. Hand or power tools are used in the assembly process. Influences from the operation of machinery and tools, i.e. fuel and electricity, have been included in the analysis. The largest recipients of orders are located in Poland and Western Europe (the Netherlands, Denmark, Belgium, Luxembourg, France). Road transport is used in the vast majority. The fuels used depend on the means of transport used, but the vast majority is diesel. Average distances for the 20 largest national and international transports over the last 9 months are shown below:

International transport		
Country	Address	Distance [km]
Netherlands	4128 LX LEXMOND	1077
Denmark	6630 RØDDING	935
Denmark	2100 KØBENHAVN	923
Belgium	8791 WAREGEM	1175
Luxemburg	4460 BELVAUX	1070
France	14460 COLOMBELLES CEDEX 03	1581
France	13400 AUBAGNE	1773
France	54450 HERBEVILLER	1054
France	1180 SAINT-GERMAIN-LES-ARPAJON	1394
France	33370 POMPIGNAC	1958
<b>Average:</b>		<b>1294</b>

Domestic transport		
City	Name of construction site	Distance [km]
Warszawa	Forest	340
Gdańsk	Format	550
Warszawa	Central Point	330
Poznań	Nowy Rynek	300
Gdańsk	STOS Politechnika Gdańska	550
Szczecin	Morskie Centrum Nauki	480
Łódź	Fuzja	210
Sosnowiec	Stadion Piłkarski	120
Biskupice Podgórne	LG Formation P4	100
Wrocław	Centrum Południe	120
Katowice	Global Office Center	110
<b>Average:</b>		<b>292</b>

**Data collection period**

The production and transport data of the declared products concern year 2021. The life cycle assessment has been prepared for Poland as a reference area.

**Data quality**

The data for the LCA calculations came from the inventoried statements from the production plant of DFM Doors Sp. z o.o. in Opole.

**Assumptions and estimates**

The impacts of the representative products were aggregated using a weighted average. The results obtained for the representative products can be applied proportionally to all doors of type DFM DS.

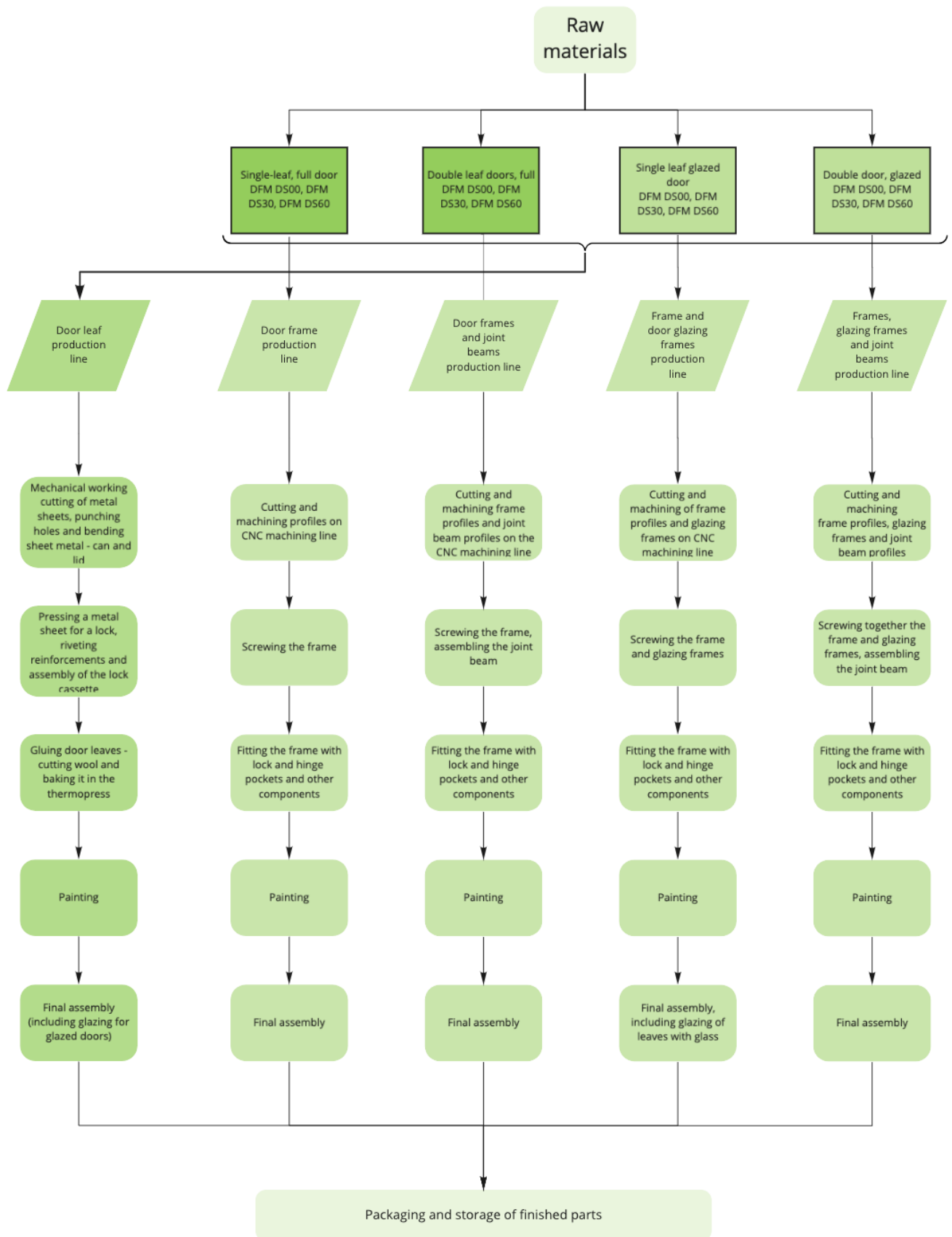
**Calculation principles**

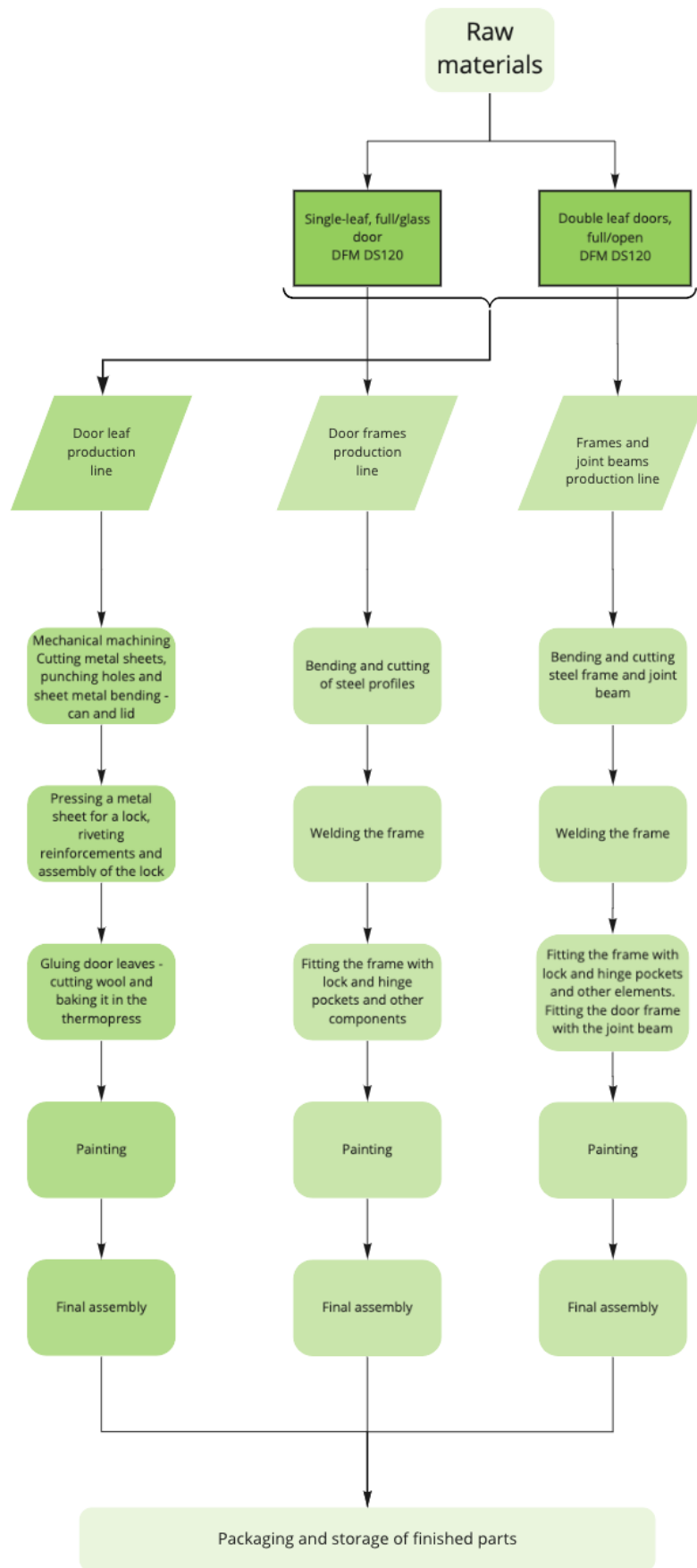
The LCA was performed in accordance with the PN-EN 15804 standard and the ITB PCR A document.

**Databases**

The data for the calculations came from Ecoinvent v. 3.8 and from databases available in Bionova's OneClickLCA software. The characterisation factors are CML ver. 4.2 based on EN 15804:2013







# Life cycle assessment (LCA) - results



## Declared unit

The declared unit is a representative product of the specified weight for each of the four types of doors manufactured by DFM Doors Sp. z o.o.

Information on environmental assessment (MD - declared module, MND - module not declared)

Information on system boundaries (X = included in the life cycle, MND = module not declared)																
Production stage			Distribution stage		Use stage							Disposal phase				Area outside the system boundary
Raw material supply	Transport	Manufacturing	Transport from manufacturer to place of use	Assembly	Use/Application	Maintenance	Repair	Replacement	Renovation	Energy contribution to building operation	Water contribution to building operation	Dismantling/demolition	Transport	Waste treatment	Removal	Potential for re-use, recovery or recycling
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
MD	MD	MD	MD	MD	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND

As the raw materials in the production stage provide the main contribution to the environmental balance results, there is a linear relationship between the weight of the raw materials and the environmental impact. For further results for other dimensions and types of DFM DS products, please use the following formula:

$$P(x) = [P(x1)/x1]*x$$

P(x): indicator for new declared product,

P(x1): the indicator obtained for the product representing the product type, (e.g. global warming potential (GWP))

x: mass of the new declared product

x1: weight of the product representing the product type

## Results for door type DFM DS00

Environmental impacts: product unit (m=56.8kg) representing DFM DS00-1 door type (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Global warming potential	kg CO2 eq.	2.59E2	6.577E-2	2.141E1	2.807E2	8.807E0	2.194E-2
Ozone-depleting potential of the stratospheric ozone layer	kg CFC 11 eq.	9.677E-6	3.011E-8	5.525E-7	1.026E-5	1.194E-5	4.071E-8
Acidification potential of soil and water	kg SO2 eq.	1.486E0	2.585E-4	1.902E-1	1.677E0	9.526E-2	2.599E-4
Eutrophication potential	kg (PO4)3- eq.	3.245E-1	4.246E-5	4.471E-2	3.693E-1	1.174E-2	3.458E-5
Tropospheric ozone creation potential	kg Ethene eq.k	1.028E-1	2.325E-5	6.366E-3	1.092E-1	3.865E-3	1.062E-5
Abiotic depletion potential of non-fossil resources	kg Sb eq.	3.731E-2	1.006E-7	2.657E-5	3.734E-2	5.024E-5	7.071E-8
Abiotic depletion potential of fossil fuels	MJ	3.096E3	5.531E0	2.392E2	3.341E3	9.319E2	3.165E0

Environmental aspects related to resource use: unit of product (m=56.8kg) representing DFM DS00-1 door type (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Renewable primary energy as an energy carrier	MJ	4.015E2	1.943E-2	1.078E1	4.123E2	2.258E0	5.924E-3
Renewable primary energy for material use	MJ	1.392E1	0E0	0E0	1.392E1	0E0	0E0
Total renewable primary energy	MJ	4.154E2	1.943E-2	1.078E1	4.262E2	2.258E0	5.924E-3
Non-renewable primary energy as an energy source	MJ	3.247E3	5.531E0	2.392E2	3.491E3	9.319E2	3.165E0
Non-renewable primary energy for material use	MJ	1.986E1	0E0	0E0	1.986E1	0E0	0E0
Total non-renewable primary energy	MJ	3.266E3	5.531E0	2.392E2	3.511E3	9.319E2	3.165E0
Use of secondary raw materials	kg	1.081E1	6.674E-4	1.041E-3	1.081E1	5.105E-2	1.385E-4
Renewable secondary fuels	MJ	5.531E-1	0E0	0E0	5.531E-1	0E0	0E0
Non-renewable secondary fuels	MJ	6.403E1	0E0	0E0	6.403E1	0E0	0E0
Use of fresh water resources	m3	9.703E-1	1.239E-4	7.046E-2	1.041E0	6.053E-2	1.871E-4

Other environmental information describing the waste categories: product unit (m=56.8kg) representing the door type DFM DS00-1 (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Hazardous waste destined for landfill	kg	2.178E0	1.857E-3	1.167E0	3.347E0	2.35E-1	6.158E-4
Non-hazardous waste destined for disposal	kg	6.081E1	3.804E-2	5.181E1	1.127E2	3.83E0	8.698E-3
Radioactive waste for disposal	kg	2.143E-2	1.241E-6	2.37E-4	2.167E-2	6.752E-3	2.301E-5
Components to be reused	kg	4.997E-2	0E0	0E0	4.997E-2	0E0	0E0
Materials to be recycled	kg	1.613E0	0E0	0E0	1.613E0	0E0	0E0
Materials destined for energy recovery	kg	5.971E-5	0E0	0E0	5.971E-5	0E0	0E0
Exported energy	MJ	3.258E-3	0E0	0E0	3.258E-3	0E0	0E0

## Results for door type DFM DS00

Environmental impacts: product unit (m=58.7kg) representing DFM DS00-1 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Global warming potential	kg CO2 eq.	2.61E2	6.577E-2	2.141E1	2.825E2	8.807E0	2.194E-2
Ozone-depleting potential of the stratospheric ozone layer	kg CFC 11 eq.	1.373E-5	3.011E-8	5.525E-7	1.432E-5	1.194E-5	4.071E-8
Acidification potential of soil and water	kg SO2 eq.	1.486E0	2.585E-4	1.902E-1	1.677E0	9.526E-2	2.599E-4
Eutrophication potential	kg (PO4)3- eq.	3.284E-1	4.246E-5	4.471E-2	3.731E-1	1.174E-2	3.458E-5
Tropospheric ozone creation potential	kg Ethene eq.k	1.021E-1	2.325E-5	6.366E-3	1.085E-1	3.865E-3	1.062E-5
Abiotic depletion potential of non-fossil resources	kg Sb eq.	3.543E-2	1.006E-7	2.657E-5	3.546E-2	5.024E-5	7.071E-8
Abiotic depletion potential of fossil fuels	MJ	3.114E3	5.531E0	2.392E2	3.359E3	9.319E2	3.165E0

Environmental aspects related to resource use: unit of product (m=58.7kg) representing DFM DS00-1 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Renewable primary energy as an energy carrier	MJ	4.113E2	1.943E-2	1.078E1	4.221E2	2.258E0	5.924E-3
Renewable primary energy for material use	MJ	1.362E1	0E0	0E0	1.362E1	0E0	0E0
Completely renewable primary energy	MJ	4.249E2	1.943E-2	1.078E1	4.357E2	2.258E0	5.924E-3
Non-renewable primary energy as an energy source	MJ	3.279E3	5.531E0	2.392E2	3.523E3	9.319E2	3.165E0
Non-renewable primary energy for material use	MJ	1.743E1	0E0	0E0	1.743E1	0E0	0E0
Completely non-renewable primary energy	Mj	3.296E3	5.531E0	2.392E2	3.541E3	9.319E2	3.165E0
Use of secondary raw materials	kg	1.053E1	6.674E-4	1.041E-3	1.053E1	5.105E-2	1.385E-4
Renewable secondary fuels	MJ	5.531E-1	0E0	0E0	5.531E-1	0E0	0E0
Non-renewable secondary fuels	MJ	6.263E1	0E0	0E0	6.263E1	0E0	0E0
Use of fresh water resources	m3	9.667E-1	1.239E-4	7.046E-2	1.037E0	6.053E-2	1.871E-4

Other environmental information describing the waste categories: product unit (m=58.7kg) representing the door type DFM DS00-1 (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Hazardous waste destined for landfill	kg	2.066E0	1.857E-3	1.167E0	3.235E0	2.35E-1	6.158E-4
Non-hazardous waste destined for disposal	kg	6.089E1	3.804E-2	5.181E1	1.127E2	3.83E0	8.698E-3
Radioactive waste for disposal	kg	2.772E-2	1.241E-6	2.37E-4	2.796E-2	6.752E-3	2.301E-5
Components to be reused	kg	4.997E-2	0E0	0E0	4.997E-2	0E0	0E0
Materials to be recycled	kg	1.74E0	0E0	0E0	1.74E0	0E0	0E0
Materials destined for energy recovery	kg	5.971E-5	0E0	0E0	5.971E-5	0E0	0E0
Exported energy	MJ	2.757E-3	0E0	0E0	2.757E-3	0E0	0E0



## Results for door type DFM DS00

Environmental impacts: product unit (m=106.6kg) representing DFM DS00-2 door type (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Global warming potential	kg CO2 eq.	4.457E2	1.315E-1	4.281E1	4.886E2	1.761E1	4.388E-2
Ozone-depleting potential of the stratospheric ozone layer	kg CFC 11 eq.	1.602E-5	6.021E-8	1.105E-6	1.719E-5	2.388E-5	8.141E-8
Acidification potential of soil and water	kg SO2 eq.	2.306E0	5.17E-4	3.805E-1	2.687E0	1.905E-1	5.199E-4
Eutrophication potential	kg (PO4)3- eq.	4.899E-1	8.463E-5	8.941E-2	5.794E-1	2.348E-2	6.917E-5
Tropospheric ozone creation potential	kg Ethene eq.k	1.683E-1	4.65E-5	1.273E-2	1.811E-1	7.729E-3	2.125E-5
Abiotic depletion potential of non-fossil resources	kg Sb eq.	6.645E-2	2.011E-7	5.314E-5	6.65E-2	1.005E-4	1.414E-7
Abiotic depletion potential of fossil fuels	MJ	5.301E3	1.106E1	4.785E2	5.791E3	1.864E3	6.331E0

Environmental aspects related to resource use: unit of product (m=106.6kg) representing DFM DS00-2 door type (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Renewable primary energy as an energy carrier	MJ	6.902E2	3.885E-2	2.155E1	7.118E2	4.517E0	1.185E-2
Renewable primary energy for material use	MJ	1.579E1	0E0	0E0	1.579E1	0E0	0E0
Completely renewable primary energy	MJ	7.06E2	3.885E-2	2.155E1	7.276E2	4.517E0	1.185E-2
Non-renewable primary energy as an energy source	MJ	5.553E3	1.106E1	7.785E2	6.043E3	1.864E3	6.331E0
Non-renewable primary energy for material use	MJ	3.931E1	0E0	0E0	3.931E1	0E0	0E0
Completely non-renewable primary energy	MJ	5.592E3	1.106E1	4.785E2	6.082E3	1.864E3	6.331E0
Use of secondary raw materials	kg	2.05E1	1.335E-3	2.082E-3	2.05E1	1.021E-1	2.771E-4
Renewable secondary fuels	MJ	8.372E-1	0E0	0E0	8.372E-1	0E0	0E0
Non-renewable secondary fuels	MJ	1.098E2	0E0	0E0	1.098E2	0E0	0E0
Use of fresh water resources	m3	1.768E0	2.477E-4	1.409E-1	1.909E0	1.211E-1	3.741E-4

Other environmental information describing the waste categories: Product unit (m=106.6kg) representing DFM DS00-2 door type (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Hazardous waste destined for landfill	2.668E0	3.715E-3	2.334E0	5.006E0	4.701E-1	1.232E-3	2.668E0
Non-hazardous waste destined for disposal	8.505E1	7.609E-2	1.036E2	1.887E2	7.661E0	1.74E-2	8.505E1
Radioactive waste for disposal	4.131E-2	2.482E-6	4.741E-4	4.179E-2	1.35E-2	4.601E-5	4.131E-2
Components to be reused	4.99E-2	0E0	0E0	4.997E-2	0E0	0E0	4.99E-2
Materials to be recycled	2.446E0	0E0	0E0	2.446E0	0E0	0E0	2.446E0
Materials destined for energy recovery	5.975E-5	0E0	0E0	5.975E-5	0E0	0E0	5.975E-5
Exported energy	2.757E-3	0E0	0E0	2.757E-3	0E0	0E0	2.757E-3

## Results for door type DFM DS00

### Environmental impacts: product unit (m=110.2kg) representing door type DFM DS00-2 (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Global warming potential	kg CO2 eq.	4.505E2	1.315E-1	4.281E1	4.934E2	1.761E1	4.388E-2
Ozone-depleting potential of the stratospheric ozone layer	kg CFC 11 eq.	2.422E-5	6.021E-8	1.105E-6	2.538E-5	2.388E-5	8.141E-8
Acidification potential of soil and water	kg SO2 eq.	2.335E0	5.17E-4	3.805E-1	2.716E0	1.905E-1	5.199E-4
Eutrophication potential	kg (PO4)3- eq.	5.018E-1	8.493E-5	8.941E-2	5.912E-1	2.348E-2	6.917E-5
Tropospheric ozone creation potential	kg Ethene eq.k	1.684E-1	4.65E-5	1.273E-2	1.812E-1	7.729E-3	2.125E-5
Abiotic depletion potential of non-fossil resources	kg Sb eq.	6.405E-2	2.011E-7	5.314E-5	6.41E-2	1.005E-4	1.414E-7
Abiotic depletion potential of fossil fuels	MJ	5.354E3	1.106E1	4.785E2	5.844E3	1.864E3	6.331E0

### Environmental aspects related to resource use: unit of product (m=110.2kg) representing door type DFM DS00-2 (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Renewable primary energy as an energy carrier	MJ	7.12E2	3.885E-2	2.155E1	7.336E2	4.517E0	1.185E-2
Renewable primary energy for material use	MJ	1.579E1	0E0	0E0	1.579E1	0E0	0E0
Completely renewable primary energy	MJ	7.278E2	3.885E-2	2.155E1	7.494E2	4.517E0	1.185E-2
Non-renewable primary energy as an energy source	MJ	5.636E3	1.106E1	4.785E2	6.125E3	1.864E3	6.331E0
Non-renewable primary energy for material use	MJ	8.451E1	0E0	0E0	3.451E1	0E0	0E0
Completely non-renewable primary energy	Mj	5.67E3	1.106E1	4.785E2	6.16E3	1.864E3	6.331E0
Use of secondary raw materials	kg	1.998E1	1.335E-3	2.082E-3	1.998E1	1.021E-1	2.771E-4
Renewable secondary fuels	MJ	8.372E-1	0E0	0E0	8.372E-1	0E0	0E0
Non-renewable secondary fuels	MJ	1.07E2	0E0	0E0	1.07E2	0E0	0E0
Use of fresh water resources	m3	1.779E0	2.477E-4	1.409E-1	1.921E0	1.211E-1	3.741E-4

### Other environmental information describing the waste categories: unit of product (m=110.2kg) representing DFM DS00-2 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Hazardous waste destined for landfill	kg	2.665E0	3.715E-3	2.334E0	5.003E0	4.701E-1	1.232E-3
Non-hazardous waste destined for disposal	kg	8.703E1	7.609E-2	1.036E2	1.907E2	7.661E0	1.74E-2
Radioactive waste for disposal	kg	5.393E-2	2.482E-6	4.741E-4	5.441E-2	1.35E-2	4.601E-5
Components to be reused	kg	4.997E-2	0E0	0E0	4.997E-2	0E0	0E0
Materials to be recycled	kg	2.728E0	0E0	0E0	2.728E0	0E0	0E0
Materials destined for energy recovery	kg	5.975E-5	0E0	0E0	5.975E-5	0E0	0E0
Exported energy	MJ	2.757E-3	0E0	0E0	2.757E-3	0E0	0E0

## Results for door type DFM DS30

Environmental impacts: product unit (m=57.8kg) representing DFM DS30-1 door type (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Global warming potential	kg CO2 eq.	2.654E2	6.577E-2	2.141E1	2.869E2	8.807E0	2.194E-2
Ozone-depleting potential of the stratospheric ozone layer	kg CFC 11 eq.	9.635E-6	3.011E-8	5.525E-7	1.022E-5	1.194E-5	4.071E-8
Acidification potential of soil and water	kg SO2 eq.	1.482E0	2.585E-4	1.902E-1	1.673E0	9.526E-2	2.599E-4
Eutrophication potential	kg (PO4)3- eq.	3.255E-1	4.246E-5	4.471E-2	3.702E-1	1.174E-2	3.458E-5
Tropospheric ozone creation potential	kg Ethene eq.k	1.035E-1	2.325E-5	6.366E-3	1.099E-1	3.865E-3	1.062E-5
Abiotic depletion potential of non-fossil resources	kg Sb eq.	3.664E-2	1.006E-7	2.657E-5	3.666E-2	5.024E-5	7.071E-8
Abiotic depletion potential of fossil fuels	MJ	3.185E3	5.531E0	2.392E2	3.43E3	9.319E2	3.165E0

Environmental aspects related to the use of resources: unit of product (m=57.8kg) representing DFM DS30-1 door type (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Renewable primary energy as an energy carrier	MJ	4.246E2	1.943E-2	1.078E1	4.354E2	2.258E0	5.924E-3
Renewable primary energy for material use	MJ	1.362E1	0E0	0E0	1.362E1	0E0	0E0
Completely renewable primary energy	MJ	4.382E2	1.943E-2	1.078E1	4.49E2	2.258E0	5.924E-3
Non-renewable primary energy as an energy source	MJ	3.339E3	5.531E0	2.392E2	3.584E3	9.319E2	3.165E0
Non-renewable primary energy for material use	MJ	2.343E1	0E0	0E0	2.343E1	0E0	0E0
Completely non-renewable primary energy	Mj	3.362E3	5.531E0	2.392E2	3.607E3	9.319E2	3.165E0
Use of secondary raw materials	kg	1.079E1	6.674E-4	1.041E-3	1.079E1	5.105E-2	1.385E-4
Renewable secondary fuels	MJ	5.531E-1	0E0	0E0	5.531E-1	0E0	0E0
Non-renewable secondary fuels	MJ	6.403E1	0E0	0E0	6.403E1	0E0	0E0
Use of fresh water resources	m3	9.826E-1	1.239E-4	7.046E-2	1.053E0	6.053E-2	1.871E-4

Other environmental information describing the waste categories: Product unit (m=57.8kg) representing DFM DS30-1 door type (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Hazardous waste destined for landfill	kg	2.068E0	1.857E-3	1.167E0	3.236E0	2.35E-1	6.158E-4
Non-hazardous waste destined for disposal	kg	6.053E1	3.804E-2	5.181E1	1.124E2	3.83E0	8.698E-3
Radioactive waste for disposal	kg	2.454E-2	1.241E-6	2.37E-4	2.477E-2	6.752E-3	2.301E-5
Components to be reused	kg	4.997E-2	0E0	0E0	4.997E-2	0E0	0E0
Materials to be recycled	kg	1.6E0	0E0	0E0	1.6E0	0E0	0E0
Materials destined for energy recovery	kg	5.971E-5	0E0	0E0	5.971E-5	0E0	0E0
Exported energy	MJ	2.757E-3	0E0	0E0	2.757E-3	0E0	0E0

## Results for door type DFM DS30

Environmental impacts: unit of product (m=62.5kg) representing DFM DS30-1 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Global warming potential	kg CO2 eq.	2.685E2	6.577E-2	2.141E1	2.9E2	8.807E0	2.194E-2
Ozone-depleting potential of the stratospheric ozone layer	kg CFC 11 eq.	1.609E-5	3.011E-8	5.525E-7	1.667E-5	1.194E-5	4.071E-8
Acidification potential of soil and water	kg SO2 eq.	1.512E0	2.585E-4	1.902E-1	1.703E0	9.526E-2	2.599E-4
Eutrophication potential	kg (PO4)3- eq.	3.348E-1	4.246E-5	4.471E-2	3.796E-1	1.174E-2	3.458E-5
Tropospheric ozone creation potential	kg Ethene eq.k	1.038E-1	2.325E-5	6.366E-3	1.102E-1	3.865E-3	1.062E-5
Abiotic depletion potential of non-fossil resources	kg Sb eq.	3.546E-2	1.006E-7	2.657E-5	3.549E-2	5.024E-5	7.071E-8
Abiotic depletion potential of fossil fuels	MJ	3.197E3	5.531E0	2.392E2	3.442E3	9.319E2	3.165E0

Environmental aspects related to resource use: unit of product (m=62.5kg) representing DFM DS30-1 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Renewable primary energy as an energy carrier	MJ	4.277E2	1.943E-2	1.078E1	4.358E2	2.258E0	5.924E-3
Renewable primary energy for material use	MJ	1.32E1	0E0	0E0	1.362E1	0E0	0E0
Completely renewable primary energy	MJ	4.413E2	1.943E-2	1.078E1	4.521E2	2.258E0	5.924E-3
Non-renewable primary energy as an energy source	MJ	3.373E3	5.531E0	2.392E2	3.618E3	9.319E2	3.165E0
Non-renewable primary energy for material use	MJ	1.743E1	0E0	0E0	1.743E1	0E0	0E0
Completely non-renewable primary energy	Mj	3.391E3	5.531E0	2.392E2	3.636E3	9.319E2	3.165E0
Use of secondary raw materials	kg	1.081E1	6.674E-4	1.041E-3	1.081E1	5.105E-2	1.385E-4
Renewable secondary fuels	MJ	5.5321E1	0E0	0E0	5.531E-1	0E0	0E0
Non-renewable secondary fuels	MJ	6.263E1	0E0	0E0	6.263E1	0E0	0E0
Use of fresh water resources	m3	9.98E-1	1.239E-4	7.046E-2	1.069E0	6.053E-2	1.871E-4

Other environmental information describing the waste categories: unit of product (m=62.5kg) representing DFM DS30-1 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Hazardous waste destined for landfill	kg	2.066E0	1857E-3	1.167E0	3.235E0	2.35E-1	6.158E-4
Non-hazardous waste destined for disposal	kg	6.18E1	3.804E-2	5.181E1	1.136E2	3.83E0	8.698E-3
Radioactive waste for disposal	kg	3.238E-2	1.241E-6	2.37E-4	3.262E-2	6.752E-3	2.301E-5
Components to be reused	kg	4.99E-2	0E0	0E0	4.99E-2	0E0	0E0
Materials to be recycled	kg	1.817E0	0E0	0E0	1.817E0	0E0	0E0
Materials destined for energy recovery	kg	5.971E-5	0E0	0E0	5.971E-5	0E0	0E0
Exported energy	MJ	2.757E-3	0E0	0E0	2.757E-3	0E0	0E0

## Results for door type DFM DS30

Environmental impacts: product unit (m=113.3kg) representing DFM DS30-2 door type (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Global warming potential	kg CO2 eq.	4.457E2	1.315E-1	4.281E1	4.886E2	1.731E1	4.388E-2
Ozone-depleting potential of the stratospheric ozone layer	kg CFC 11 eq.	1.602E-5	6.021E-8	1.105E-6	1.719E-5	2.388E-5	8.141E-8
Acidification potential of soil and water	kg SO2 eq.	2.306E0	5.17E-4	3.805E-1	2.687E0	1.905E-1	5.199E-4
Eutrophication potential	kg (PO4)3- eq.	4.899E-1	8.493E-5	8.941E-2	5.794E-1	2.348E-2	6.917E-5
Tropospheric ozone creation potential	kg Ethene eq.k	1.683E-1	4.65E-5	1.273E-2	1.811E-1	7.729E-3	2.125E-5
Abiotic depletion potential of non-fossil resources	kg Sb eq.	6.645E-2	2.011E-7	5.314E-5	6.65E-2	1.005E-4	1.414E-7
Abiotic depletion potential of fossil fuels	MJ	5.301E3	1.106E1	4.785E2	5.791E3	1.864E3	6.331E0

Environmental aspects related to resource use: unit of product (m=113.3kg) representing DFM DS30-2 door type (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Renewable primary energy as an energy carrier	MJ	6.902E2	3.885E-2	2.155E1	7.118E2	4.517E0	1.185E-2
Renewable primary energy for material use	MJ	1.579E1	0E0	0E0	1.579E1	0E0	0E0
Completely renewable primary energy	MJ	7.06E2	3.885E-2	2.155E1	7.276E2	4.517E0	1.185E-2
Non-renewable primary energy as an energy source	MJ	5.553E3	1.106E1	4.785E2	6.043E3	1.864E3	6.331E0
Non-renewable primary energy for material use	MJ	3.931E1	0E0	0E0	3.931E1	0E0	0E0
Completely non-renewable primary energy	MJ	5.592E3	1.106E1	4.785E2	6.082E3	1.864E3	6.331E0
Use of secondary raw materials	kg	2.05E1	1.335E-3	2.082E-3	2.05E1	1.021E-1	2.771E-4
Renewable secondary fuels	MJ	8.372E-1	0E0	0E0	8.372E-1	0E0	0E0
Non-renewable secondary fuels	MJ	1.098E2	0E0	0E0	1.098E2	0E0	0E0
Use of fresh water resources	m3	1.768E0	2.477E-4	1.409E-1	1.909E0	1.211E-1	3.741E-4

Other environmental information describing the waste categories: product unit (m=113.3kg) representing DFM DS30-2 door type (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Hazardous waste destined for landfill	kg	2.668E0	3.715E-3	2.334E0	5.006E0	4.701E-1	1.232E-3
Non-hazardous waste destined for disposal	kg	8.505E1	7.609E-2	1.036E2	1.887E2	7.661E0	1.74E-2
Radioactive waste for disposal	kg	4.131E-2	2.482E-6	4.741E-4	4.179E-2	1.35E-2	4.601E-5
Components to be reused	kg	4.997E-2	0E0	0E0	4.997E-2	0E0	0E0
Materials to be recycled	kg	2.446E0	0E0	0E0	2.446E0	0E0	0E0
Materials destined for energy recovery	kg	5.975E-5	0E0	0E0	5.975E-5	0E0	0E0
Exported energy	MJ	2.757E-3	0E0	0E0	2.757E-3	0E0	0E0



## Results for door type DFM DS30

### Environmental impacts: product unit (m=122.0kg) representing DFM DS30-2 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Global warming potential	kg CO2 eq.	4.653E2	1.315E-1	4.281E1	5.083E2	1.761E1	4.388E-2
Ozone-depleting potential of the stratospheric ozone layer	kg CFC 11 eq.	2.885E-5	6.021E-8	1.105E-6	3.002E-5	2.388E-5	8.141E-8
Acidification potential of soil and water	kg SO2 eq.	2.387E0	5.17E-4	3.805E-1	2.768E0	1.905E-1	5.199E-4
Eutrophication potential	kg (PO4)3- eq.	5.145E-1	8.493E-5	8.941E-2	6.04E-1	2.348E-2	6.917E-5
Tropospheric ozone creation potential	kg Ethene eq.k	1.718E-1	4.65E-5	1.273E-2	1.846E-1	7.729E-3	2.125E-5
Abiotic depletion potential of non-fossil resources	kg Sb eq.	6.41E-2	2.011E-7	5.314E-5	6.416E-2	1.005E-4	1.414E-7
Abiotic depletion potential of fossil fuels	MJ	5.517E3	1.106E1	4.785E2	6.007E3	1.864E3	6.331E0

### Environmental aspects related to resource use: unit of product (m=122.0kg) representing DFM DS30-2 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Renewable primary energy as an energy carrier	MJ	7.443E2	3.885E-2	2.155E1	7.659E2	4.517E0	1.185E-2
Renewable primary energy for material use	MJ	1.579E1	0E0	0E0	1.579E1	0E0	0E0
Completely renewable primary energy	MJ	7.601E2	3.885E-2	2.155E1	7.817E2	4.517E0	1.185E-2
Non-renewable primary energy as an energy source	MJ	5.822E3	1.106E1	4.785E2	6.312E3	1.864E3	6.331E0
Non-renewable primary energy for material use	MJ	3.451E1	0E0	0E0	3.451E1	0E0	0E0
Completely non-renewable primary energy	MJ	5.857E3	1.106E1	4.785E2	6.346E3	1.864E3	6.331E0
Use of secondary raw materials	kg	2.053E1	1.335E-3	2.082E-3	2.053E1	1.021E-1	2.771E-4
Renewable secondary fuels	MJ	8.372E-1	0E0	0E0	8.372E-1	0E0	0E0
Non-renewable secondary fuels	MJ	1.07E2	0E0	0E0	1.07E2	0E0	0E0
Use of fresh water resources	m3	1.841E0	2.477E-4	1.409E-1	1.982E0	1.211E-1	3.741E-4

### Other environmental information describing the waste categories: product unit (m=122.0kg) representing DFM DS30-2 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Hazardous waste destined for landfill	kg	2.666E0	3.715E-3	2.334E0	5.003E0	4.701E-1	1.232E-3
Non-hazardous waste destined for disposal	kg	8.882E1	7.609E-2	1.036E2	1.925E2	7.661E0	1.74E-2
Radioactive waste for disposal	kg	6.309E-2	2.482E-6	4.741E-4	6.357E-2	1.35E-2	4.601E-5
Components to be reused	kg	4.997E-2	0E0	0E0	4.997E-2	0E0	0E0
Materials to be recycled	kg	5.879E0	0E0	0E0	5.879E0	0E0	0E0
Materials destined for energy recovery	kg	5.975E-5	0E0	0E0	5.975E-5	0E0	0E0
Exported energy	MJ	2.757E-3	0E0	0E0	2.757E-3	0E0	0E0

## Results for door type DFM DS60

Environmental impacts: product unit (m=64.4kg) representing DFM DS60-1 door type (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Global warming potential	kg CO2 eq.	2.864E2	6.577E-2	2.141E1	3.079E2	8.807E0	2.194E-2
Ozone-depleting potential of the stratospheric ozone layer	kg CFC 11 eq.	2.097E-5	3.011E-8	5.525E-7	2.156E-5	1.194E-5	4.071E-8
Acidification potential of soil and water	kg SO2 eq.	1.575E0	2.585E-4	1.902E-1	1.765E0	9.526E-2	2.599E-4
Eutrophication potential	kg (PO4)3- eq.	3.492E-1	4.246E-5	4.471E-2	3.94E-1	1.174E-2	3.458E-5
Tropospheric ozone creation potential	kg Ethene eq.k	1.083E-1	2.325E-5	6.366E-3	1.147E-1	3.865E-3	1.062E-5
Abiotic depletion potential of non-fossil resources	kg Sb eq.	3.556E-2	1.006E-7	2.657E-5	3.559E-2	5.024E-5	7.071E-8
Abiotic depletion potential of fossil fuels	MJ	3.4E3	5.531E0	2.392E2	3.644E3	9.319E2	3.165E0

Environmental aspects related to resource use: unit of product (m=64.4kg) representing DFM DS60-1 door type (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Renewable primary energy as an energy carrier	MJ	4.635E2	1.943E-2	1.078E1	4.743E1	2.258E0	5.924E-3
Renewable primary energy for material use	MJ	1.362E1	0E0	0E0	1.362E1	0E0	0E0
Completely renewable primary energy	MJ	4.771E2	1.943E-2	1.078E1	4.879E2	2.258E0	5.924E-3
Non-renewable primary energy as an energy source	MJ	3.604E3	5.531E0	2.392E2	3.849E3	9.319E2	3.165E0
Non-renewable primary energy for material use	MJ	1.743E1	0E0	0E0	1.743E1	0E0	0E0
Completely non-renewable primary energy	MJ	3.622E3	5.531E0	2.392E2	3.967E3	9.319E2	3.165E0
Use of secondary raw materials	kg	1.297E1	6.674E-4	1.041E-3	1.297E1	5.105E-2	1.385E-4
Renewable secondary fuels	MJ	5.555E-1	0E0	0E0	5.555E-1	0E0	0E0
Non-renewable secondary fuels	MJ	6.264E1	0E0	0E0	6.264E1	0E0	0E0
Use of fresh water resources	m3	1.099E0	1.239E-4	7.046E-2	1.17E0	6.053E-2	1.871E-4

Other environmental information describing the waste categories: product unit (m=64.4kg) representing the door type DFM DS60-1 (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Hazardous waste destined for landfill	kg	2.07E0	1.857E-3	1.167E0	3.239E0	2.35E-1	6.158E-4
Non-hazardous waste destined for disposal	kg	6.392E1	3.804E-2	5.181E1	1.158E2	3.83E0	8.698E-3
Radioactive waste for disposal	kg	4.18E-2	1.241E-6	2.37E-4	4.204E-2	6.752E-3	2.301E-5
Components to be reused	kg	9.994E-2	0E0	0E0	9.994E-2	0E0	0E0
Materials to be recycled	kg	1.973E0	0E0	0E0	1.973E0	0E0	0E0
Materials destined for energy recovery	kg	1.194E-4	0E0	0E0	1.194E-4	0E0	0E0
Exported energy	MJ	2.757E-3	0E0	0E0	2.757E-3	0E0	0E0

## Results for door type DFM DS60

Environmental impacts: product unit (m=74.4kg) representing DFM DS60-1 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Global warming potential	kg CO2 eq.	2.864E2	6.577E-2	2.141E1	3.079E2	8.807E0	2.194E-2
Ozone-depleting potential of the stratospheric ozone layer	kg CFC 11 eq.	2.097E-5	3.011E-8	5.525E-7	2.156E-5	1.194E-5	4.071E-8
Acidification potential of soil and water	kg SO2 eq.	1.575E0	2.585E-4	1.902E-1	1.765E0	9.526E-2	2.599E-4
Eutrophication potential	kg (PO4)3- eq.	3.492E-1	4.246E-5	4.471E-2	3.94E-1	1.174E-2	3.458E-5
Tropospheric ozone creation potential	kg Ethene eq.k	1.083E-1	2.325E-5	6.366E-3	1.147E-1	3.865E-3	1.062E-5
Abiotic depletion potential of non-fossil resources	kg Sb eq.	3.556E-2	1.006E-7	2.657E-5	3.559E-2	5.024E-5	7.071E-8
Abiotic depletion potential of fossil fuels	MJ	3.4E3	5.531E0	2.392E2	3.644E3	9.319E2	3.165E0

Environmental aspects related to resource use: unit of product (m=74.4kg) representing DFM DS60-1 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Renewable primary energy as an energy carrier	MJ	4.635E2	1.943E-2	1.078E1	4.743E1	2.258E0	5.924E-3
Renewable primary energy for material use	MJ	1.362E1	0E0	0E0	1.362E1	0E0	0E0
Completely renewable primary energy	MJ	4.771E2	1.943E-2	1.078E1	4.879E2	2.258E0	5.924E-3
Non-renewable primary energy as an energy source	MJ	3.604E3	5.531E0	2.392E2	3.849E3	9.319E2	3.165E0
Non-renewable primary energy for material use	MJ	1.743E1	0E0	0E0	1.743E1	0E0	0E0
Completely non-renewable primary energy	MJ	3.622E3	5.531E0	2.392E2	3.967E3	9.319E2	3.165E0
Use of secondary raw materials	kg	1.297E1	6.674E-4	1.041E-3	1.297E1	5.105E-2	1.385E-4
Renewable secondary fuels	MJ	5.555E-1	0E0	0E0	5.555E-1	0E0	0E0
Non-renewable secondary fuels	MJ	6.264E1	0E0	0E0	6.264E1	0E0	0E0
Use of fresh water resources	m3	1.099E0	1.239E-4	7.046E-2	1.17E0	6.053E-2	1.871E-4

Other environmental information describing the waste categories: unit of product (m=74.4kg) representing DFM DS60-1 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Hazardous waste destined for landfill	kg	2.07E0	1.857E-3	1.167E0	3.239E0	2.35E-1	6.158E-4
Non-hazardous waste destined for disposal	kg	6.392E1	3.804E-2	5.181E1	1.158E2	3.83E0	8.698E-3
Radioactive waste for disposal	kg	4.18E-2	1.241E-6	2.37E-4	4.204E-2	6.752E-3	2.301E-5
Components to be reused	kg	9.994E-2	0E0	0E0	9.994E-2	0E0	0E0
Materials to be recycled	kg	1.973E0	0E0	0E0	1.973E0	0E0	0E0
Materials destined for energy recovery	kg	1.194E-4	0E0	0E0	1.194E-4	0E0	0E0
Exported energy	MJ	2.757E-3	0E0	0E0	2.757E-3	0E0	0E0

## Results for door type DFM DS60

Environmental impacts: product unit (m=118.7kg) representing DFM DS60-2 door type (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Global warming potential	kg CO2 eq.	4.505E2	1.315E-1	4.281E1	4.934E2	1.761E1	4.388E-2
Ozone-depleting potential of the stratospheric ozone layer	kg CFC 11 eq.	1.634E-5	6.021E-8	1.105E-6	1.751E-57	2.388E-5	8.141E-8
Acidification potential of soil and water	kg SO2 eq.	2.325E0	5.17E-4	3.805E-1	2.706E0	1.905E-1	5.199E-4
Eutrophication potential	kg (PO4)3- eq.	4.925E-1	8.493E-5	8.941E-2	5.82E-1	2.348E-2	6.917E-5
Tropospheric ozone creation potential	kg Ethene eq.k	1.703E-1	4.65E-5	1.273E-2	1.83E-1	7.729E-3	2.125E-5
Abiotic depletion potential of non-fossil resources	kg Sb eq.	6.665E-2	2.011E-7	5.314E-5	6.655E-2	1.005E-4	1.414E-7
Abiotic depletion potential of fossil fuels	MJ	5.367E3	1.106E1	4.785E2	5.857E3	1.864E3	6.331E0

Environmental aspects related to the use of resources: unit of product (m=118.7kg) representing DFM DS60-2 door type (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Renewable primary energy as an energy carrier	MJ	6.953E2	3.885E-2	2.155E1	7.169E2	4.517E0	1.185E-2
Renewable primary energy for material use	MJ	1.579E1	0E0	0E0	1.579E1	0E0	0E0
Completely renewable primary energy	MJ	7.111E2	3.885E-2	2.155E1	7.327E2	4.517E0	1.185E-2
Non-renewable primary energy as an energy source	MJ	5.629E3	1.106E1	4.785E2	6.118E3	1.864E3	6.331E0
Non-renewable primary energy for material use	MJ	3.931E1	0E0	0E0	3.931E1	0E0	0E0
Completely non-renewable primary energy	MJ	5.668E3	1.106E1	4.785E2	6.158E3	1.864E3	6.331E0
Use of secondary raw materials	kg	2.372E1	1.335E-3	2.082E-3	2.372E1	1.021E-1	2.771E-4
Renewable secondary fuels	MJ	8.397E-1	0E0	0E0	8.397E-1	0E0	0E0
Non-renewable secondary fuels	MJ	1.098E2	0E0	0E0	1.098E2	0E0	0E0
Use of fresh water resources	m3	1.845E0	2.477E-4	1.409E-1	1.986E0	1.211E-1	3.741E-4

Other environmental information describing the waste categories: product unit (m=118.7kg) representing the door type DFM DS60-2 (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Hazardous waste destined for landfill	kg	2.674E0	3.715E-3	2.334E0	5.012E0	4.701E-1	1.232E-3
Non-hazardous waste destined for disposal	kg	8.554E1	7.609E-2	1.036E2	1.892E2	7.661E0	1.74E-2
Radioactive waste for disposal	kg	4.151E-2	2.482E-6	4.741E-4	4.199E-2	1.35E-2	4.601E-5
Components to be reused	kg	9.994E-2	0E0	0E0	9.994E-2	0E0	0E0
Materials to be recycled	kg	2.448E0	0E0	0E0	2.448E0	0E0	0E0
Materials destined for energy recovery	kg	1.194E-4	0E0	0E0	1.194E-4	0E0	0E0
Exported energy	MJ	2.757E-3	0E0	0E0	2.757E-3	0E0	0E0

## Results for door type DFM DS60

Environmental impacts: product unit (m=139.2kg) representing DFM DS60-2 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Global warming potential	kg CO2 eq.	5.088E2	1.315E-1	4.281E1	5.438E2	1.761E1	4.388E-2
Ozone-depleting potential of the stratospheric ozone layer	kg CFC 11 eq.	3.877E-5	6.021E-8	1.105E-6	3.994E-5	2.388E-5	8.141E-8
Acidification potential of soil and water	kg SO2 eq.	2.512E0	5.17E-4	3.805E-1	2.893E0	1.905E-1	5.199E-4
Eutrophication potential	kg (PO4)3- eq.	5.435E-1	8.493E-5	8.941E-2	6.33E-1	2.348E-2	6.917E-5
Tropospheric ozone creation potential	kg Ethene eq.k	1.808E-1	4.65E-5	1.273E-2	1.936E-1	7.729E-3	2.125E-5
Abiotic depletion potential of non-fossil resources	kg Sb eq.	6.427E-2	2.011E-7	5.314E-5	6.432E-2	1.005E-4	1.414E-7
Abiotic depletion potential of fossil fuels	MJ	5.921E3	1.106E1	4.785E2	6.411E3	1.864E3	6.331E0

Environmental aspects related to resource use: unit of product (m=139.2kg) representing DFM DS60-2 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Renewable primary energy as an energy carrier	MJ	8.163E2	3.885E-2	2.155E1	8.379E2	4.517E0	1.185E-2
Renewable primary energy for material use	MJ	1.579E1	0E0	0E0	1.579E1	0E0	0E0
Completely renewable primary energy	MJ	8.321E2	3.885E-2	2.155E1	8.537E2	4.517E0	1.185E-2
Non-renewable primary energy as an energy source	MJ	6.283E3	1.106E1	4.785E2	6.773E3	1.864E3	6.331E0
Non-renewable primary energy for material use	MJ	3.451E1	0E0	0E0	3.451E1	0E0	0E0
Completely non-renewable primary energy	MJ	6.318E3	1.106E1	4.785E2	6.807E3	1.864E3	6.331E0
Use of secondary raw materials	kg	2.487E1	1.335E-3	2.082E-3	2.488E1	1.021E-1	2.771E-4
Renewable secondary fuels	MJ	8.397E-1	0E0	0E0	8.397E-1	0E0	0E0
Non-renewable secondary fuels	MJ	1.07E2	0E0	0E0	1.07E2	0E0	0E0
Use of fresh water resources	m3	2.045E0	2.477E-4	1.409E-1	2.187E0	1.211E-1	3.741E-4

Other environmental information describing the waste categories: product unit (m=139.2kg) representing DFM DS60-2 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Hazardous waste destined for landfill	kg	2.673E0	3.715E-3	2.334E0	5.01E0	4.701E-1	1.232E-3
Non-hazardous waste destined for disposal	kg	9.301E1	7.609E-2	1.036E2	1.967E2	7.661E0	1.74E-2
Radioactive waste for disposal	kg	8.225E-2	2.482E-6	4.741E-4	8.273E-2	1.35E-2	4.601E-5
Components to be reused	kg	9.994E-2	0E0	0E0	9.994E-2	0E0	0E0
Materials to be recycled	kg	3.194E0	0E0	0E0	3.194E0	0E0	0E0
Materials destined for energy recovery	kg	1.194E-4	0E0	0E0	1.194E-4	0E0	0E0
Exported energy	MJ	2.757E-3	0E0	0E0	2.757E-3	0E0	0E0



## Results for door type DFM DS120

Environmental impacts: product unit (m=105.2kg) representing DFM DS120-1 door type (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Global warming potential	kg CO2 eq.	3.908E2	1.315E-1	4.281E1	4.337E2	1.761E1	4.388E-2
Ozone-depleting potential of the stratospheric ozone layer	kg CFC 11 eq.	1.525E-5	6.021E-8	1.105E-6	1.642E-5	2.388E-5	8.141E-8
Acidification potential of soil and water	kg SO2 eq.	2.202E0	5.17E-4	3.805E-1	2.583E0	1.905E-1	5.199E-4
Eutrophication potential	kg (PO4)3- eq.	4.83E-1	8.493E-5	8.941E-2	5.725E-1	2.348E-2	6.917E-5
Tropospheric ozone creation potential	kg Ethene eq.k	1.512E-1	4.65E-5	1.273E-2	1.64E-1	7.729E-3	2.125E-5
Abiotic depletion potential of non-fossil resources	kg Sb eq.	5.111E-2	2.011E-7	5.314E-5	5.117E-2	1.005E-4	1.414E-7
Abiotic depletion potential of fossil fuels	MJ	4.74E3	1.106E1	4.785E2	5.23E3	1.864E3	6.331E0

Environmental aspects related to the use of resources: product unit (m=105.2kg) representing door type DFM DS120-1 (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Renewable primary energy as an energy carrier	MJ	6.218E2	3.885E-2	2.155E15	6.434E2	4.517E0	1.185E-2
Renewable primary energy for material use	MJ	1.796E1	0E0	0E0	1.796E1	0E0	0E0
Completely renewable primary energy	MJ	6.398E2	3.885E-2	2.155E1	6.614E2	4.517E0	1.185E-2
Non-renewable primary energy as an energy source	MJ	4.979E3	1.106E1	4.785E2	5.469E3	1.864E3	6.331E0
Non-renewable primary energy for material use	MJ	2.399E1	0E0	0E0	2.399E1	0E0	0E0
Completely non-renewable primary energy	MJ	5.003E3	1.106E1	4.785E2	5.493E3	1.864E3	6.331E0
Use of secondary raw materials	kg	1.822E1	1.335E-3	2.082E-3	1.823E1	1.021E-1	2.771E-4
Renewable secondary fuels	MJ	1.015E0	0E0	0E0	1.015E0	0E0	0E0
Non-renewable secondary fuels	MJ	9.324E1	0E0	0E0	9.324E1	0E0	0E0
Use of fresh water resources	m3	1.342E0	2.477E-4	1.409E-1	1.483E0	1.211E-1	3.741E-4

Other environmental information describing the waste categories: product unit (m=105.2kg) representing door type DFM DS120-1 (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Hazardous waste destined for landfill	kg	3.221E0	3.715E-3	2.334E0	5.558E0	4.701E-1	1.323E-3
Non-hazardous waste destined for disposal	kg	9.301E1	7.609E-2	1.036E2	1.967E2	7.661E0	1.74E-2
Radioactive waste for disposal	kg	2.722E-2	2.482E-6	4.741E-4	2.77E-2	1.35E-2	4.601E-5
Components to be reused	kg	1.124E0	0E0	0E0	1.124E0	0E0	0E0
Materials to be recycled	kg	2.958E0	0E0	0E0	2.958E0	0E0	0E0
Materials destined for energy recovery	kg	1.342E-3	0E0	0E0	1.342E-3	0E0	0E0
Exported energy	MJ	2.757E-3	0E0	0E0	2.757E-3	0E0	0E0

## Results for door type DFM DS120

Environmental impacts: product unit (m=127.7kg) representing DFM DS120-1 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Global warming potential	kg CO2 eq.	4.524E2	1.315E-1	4.281E1	4.954E2	1.761E1	4.388E-2
Ozone-depleting potential of the stratospheric ozone layer	kg CFC 11 eq.	3.748E-5	6.021E-8	1.105E-6	3.864E-5	2.388E-5	8.141E-8
Acidification potential of soil and water	kg SO2 eq.	2.42E0	5.17E-4	3.805E-1	2.801E0	1.905E-1	5.199E-4
Eutrophication potential	kg (PO4)3- eq.	5.395E-1	8.493E-5	8.941E-2	6.29E-1	2.348E-2	6.917E-5
Tropospheric ozone creation potential	kg Ethene eq.k	1.649E-1	4.65E-5	1.273E-2	1.777E-1	7.729E-3	2.125E-5
Abiotic depletion potential of non-fossil resources	kg Sb eq.	5.009E-2	2.011E-7	5.314E-5	5.014E-2	1.005E-4	1.414E-7
Abiotic depletion potential of fossil fuels	MJ	5.428E3	1.106E1	4.785E2	5.917E3	1.864E3	6.331E0

Environmental aspects related to resource use: unit of product (m=127.7kg) representing DFM DS120-1 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Renewable primary energy as an energy carrier	MJ	7.664E2	3.885E-2	2.155E1	7.88E2	4.517E0	1.185E-2
Renewable primary energy for material use	MJ	1.796E1	0E0	0E0	1.796E1	0E0	0E0
Completely renewable primary energy	MJ	7.843E2	3.885E-2	2.155E1	8.059E2	4.517E0	1.185E-2
Non-renewable primary energy as an energy source	MJ	5.773E3	1.106E1	4.785E2	6.263E3	1.864E3	6.331E0
Non-renewable primary energy for material use	MJ	2.279E1	0E0	0E0	2.279E1	0E0	0E0
Completely non-renewable primary energy	MJ	5.796E3	1.106E1	4.785E2	6.286E3	1.864E3	6331E0
Use of secondary raw materials	kg	2.01E1	1.335E-3	2.082E-3	2.01E1	1.021E-1	2.771E-4
Renewable secondary fuels	MJ	1.012E0	0E0	0E0	1.012E0	0E0	0E0
Non-renewable secondary fuels	MJ	9.183E1	0E0	0E0	9.183E1	0E0	0E0
Use of fresh water resources	m3	1.595E0	2.477E-4	1.409E-1	1.736E0	1.211E-1	3.741E-4

Other environmental information describing the waste categories: product unit (m=127.7kg) representing DFM DS120-1 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Hazardous waste destined for landfill	kg	3.221E0	3.715E-3	2.334E0	5.558E0	4.701E-1	1.232E-3
Non-hazardous waste destined for disposal	kg	1.01E2	7.609E-2	1.036E2	2.047E2	7.661E0	1.74E-2
Radioactive waste for disposal	kg	7.04E-2	2.482E-6	4.741E-4	7.087E-2	1.35E-2	4.601E-5
Components to be reused	kg	1.06E0	0E0	0E0	1.06E0	0E0	0E0
Materials to be recycled	kg	3.6890	0E0	0E0	3.6890	0E0	0E0
Materials destined for energy recovery	kg	1.266E-3	0E0	0E0	1.266E-3	0E0	0E0
Exported energy	MJ	2.757E-3	0E0	0E0	2.757E-3	0E0	0E0

## Results for door type DFM DS120

Environmental impacts: product unit (m=197.8kg) representing DFM DS120-2 door type (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Global warming potential	kg CO2 eq.	4.505E2	1.315E-1	4.281E1	4.934E2	1.761E1	4.388E-2
Ozone-depleting potential of the stratospheric ozone layer	kg CFC 11 eq.	1.634E-5	6.021E-8	1.105E-6	1.751E-5	2.388E-5	8.141E-8
Acidification potential of soil and water	kg SO2 eq.	2.325E0	5.17E-4	3.805E-1	2.706E0	1.905E-1	5.199E-4
Eutrophication potential	kg (PO4)3- eq.	4.925E-1	8.493E-5	8.941E-2	5.82E-1	2.348E-2	6.917E-5
Tropospheric ozone creation potential	kg Ethene eq.k	1.703E-1	4.65E-5	1.273E-2	1.83E-1	7.729E-3	2.125E-5
Abiotic depletion potential of non-fossil resources	kg Sb eq.	6.65E-2	2.011E-7	5.314E-5	6.655E-2	1.005E-4	1.1414E-7
Abiotic depletion potential of fossil fuels	MJ	5.367E3	1.106E1	4.785E2	5.857E3	1.864E3	6.331E0

Environmental aspects related to resource use: unit of product (m=197.8kg) representing DFM DS120-2 door type (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Renewable primary energy as an energy carrier	MJ	6.953E2	3.885E-2	2.155E1	7.169E2	4.517E0	1.185E-2
Renewable primary energy for material use	MJ	1.579E1	0E0	0E0	1.579E1	0E0	0E0
Completely renewable primary energy	MJ	7.111E2	3.885E-2	2.155E1	7.327E2	4.517E0	1.185E-2
Non-renewable primary energy as an energy source	MJ	5.629E3	1.106E1	4.785E2	6.118E3	1.864E3	6.331E0
Non-renewable primary energy for material use	MJ	3.931E1	0E0	0E0	3.931E1	0E0	0E0
Completely non-renewable primary energy	MJ	5.668E3	1.106E1	4.785E2	6.158E3	1.864E3	6.331E0
Use of secondary raw materials	kg	2.372E1	1.335E-3	2.082E-3	2.372E1	1.021E-1	2.771e-4
Renewable secondary fuels	MJ	8.397E-1	0E0	0E0	8.397E-1	0E0	0e0
Non-renewable secondary fuels	MJ	1.098E2	0E0	0E0	1.098E2	0E0	0e0
Use of fresh water resources	m3	1.845E0	2.477E-4	1.409E-1	1.986E0	1.211E-1	3.741e-4

Other environmental information describing the waste categories: product unit (m=197.8kg) representing the door type DFM DS120-2 (solid door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Hazardous waste destined for landfill	kg	2.674E0	3.715E-3	2.334E0	5.012E0	4.701E-1	1.232E-3
Non-hazardous waste destined for disposal	kg	8.554E-1	7.609E-2	1.036E2	1.892E2	7.661E0	1.74E-2
Radioactive waste for disposal	kg	4.151E-2	2.482E-6	4.741E-4	4.199E-2	1.35E-2	4.601E-5
Components to be reused	kg	9.994E-2	0E0	0E0	9.994E-2	0E0	0E0
Materials to be recycled	kg	2.448E0	0E0	0E0	2.448E0	0E0	0E0
Materials destined for energy recovery	kg	1.194E-4	0E0	0E0	1.194E-4	0E0	0E0
Exported energy	MJ	2.757E-3	0E0	0E0	2.757E-3	0E0	0E0

## Results for door type DFM DS120

Environmental impacts: product unit (m=237.8kg) representing DFM DS120-2 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Global warming potential	kg CO2 eq.	7.182E2	2.631E-1	8.563E1	8.041E2	3.523E1	8.776E-2
Ozone-depleting potential of the stratospheric ozone layer	kg CFC 11 eq.	6.7E-5	1.204E-7	2.21E-6	6.933E-5	4.777E-5	1.628E-7
Acidification potential of soil and water	kg SO2 eq.	3.558E0	1.034E-3	7.61E-1	432E0	3.81E-1	1.04E-3
Eutrophication potential	kg (PO4)3- eq.	7.671E-1	1.669E-4	1.788E-1	9.461E-1	4.697E-2	1.383E-4
Tropospheric ozone creation potential	kg Ethene eq.k	2.528E-1	9.299E-5	2.783E-1	2.783E-1	1.546E-2	4.25E-5
Abiotic depletion potential of non-fossil resources	kg Sb eq.	9.178E-2	4.022E-7	9.188E-2	9.188E-2	2.009E-4	2.828E-7
Abiotic depletion potential of fossil fuels	MJ	8.569E3	2.212E1	9.548E3	9.548E3	3.728E3	1.266E1

Environmental aspects related to resource use: unit of product (m=237.8kg) representing DFM DS120-2 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Renewable primary energy as an energy carrier	MJ	1.226E3	7.77E-2	4.31E1	1.269E3	9.034E0	2.37E-2
Renewable primary energy for material use	MJ	2.448E1	0E0	0E0	2.448E1	0E0	0E0
Completely renewable primary energy	MJ	1.251E3	7.77E-2	4.31E1	1.294E3	9.034E0	2.37E-2
Non-renewable primary energy as an energy source	MJ	9.145E3	2.212E1	9.57E2	1.012E4	3.728E3	1.266E1
Non-renewable primary energy for material use	MJ	4.283E1	0E0	0E0	4.283E1	0E0	0E0
Completely non-renewable primary energy	MJ	9.188E3	2.212E1	9.57E2	1.017E4	3.728E3	1.266E1
Use of secondary raw materials	kg	3.904E1	2.67E-3	4.164E-3	3.905E1	2.042E-1	5.541E-4
Renewable secondary fuels	MJ	1.271E0	0E0	0E0	1.271E0	0E0	0E0
Non-renewable secondary fuels	MJ	1.309E2	0E0	0E0	1.309E2	0E0	0E0
Use of fresh water resources	m3	2.996E0	4.955E-4	2.818E-1	3.278E0	2.421E-1	7.483E-4

Other environmental information describing the waste categories: unit of product (m=237.8kg) representing DFM DS120-2 door type (glazed door)

Indicator	Unit	A1	A2	A3	A1-A3	A4	A5
Hazardous waste destined for landfill	kg	4.971E0	7.43E-3	4.668E0	9.647E0	9.402E-1	2.463E-3
Non-hazardous waste destined for disposal	kg	1.459E2	1.522E-1	2.072E2	3.533E2	1.532E1	3.479E-2
Radioactive waste for disposal	kg	1.35E-1	4.964E-6	9.481E-4	1.36E-1	2.701E-2	9.202E-5
Components to be reused	kg	1.993E0	0E0	0E0	1.993E0	0E0	0E0
Materials to be recycled	kg	5.526E0	0E0	0E0	5.526E0	0E0	0E0
Materials destined for energy recovery	kg	2.379E-3	0E0	0E0	2.379E-3	0E0	0E0
Exported energy	MJ	2.757E-3	0E0	0E0	2.757E-3	0E0	0E0

## Verification

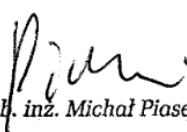
The verification process for this EPD is in accordance with ISO 14025 and ISO 21930. Once verified, this EPD is valid for a period of 5 years.

<p><b>EN 15804 serves as the basis for ITB PCR-A</b>  <b>Independent verification according to ISO 14025 (subsection 8.1.3.)</b>  <input type="checkbox"/> internal <input checked="" type="checkbox"/> external</p>
<p>External verification of EPDs: Michał Piasecki, Professor ITB, m.piasecki@itb.pl          Input data verification, LCI audit, LCA: Agnieszka Kaczmarek, JW+A, a.kaczmarek@jw-a.pl          LCA verification: Michał Piasecki, ITB professor, m.piasecki@itb.pl</p>

The purpose of this declaration is to provide a basis for the assessment of buildings and other building work. Comparison of EPD data only makes sense if all data sets to be compared have been developed in accordance with EN 15804 and product-specific performance characteristics and their impact on building works are taken into account.

### Normative references

- ITB PCR A General Product Category Rules for Construction Products
- ISO 14025:2006 Environmental labels and declarations - Type III environmental declarations - Principles and procedures
- ISO 21930:2017 Sustainability in buildings and civil engineering works - Core rules for environmental product declarations of construction products and services
- ISO 14044:2006 Environmental management - Life cycle assessment - Requirements and guidelines
- ISO 15686-1:2011 Buildings and constructed assets - Service life planning - Part 1: General principles and framework
- ISO 15686-8:2008 Buildings and constructed assets - Service life planning - Part 8: Reference service life and service-life estimation
- EN 15804+A1:2014-04 - Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products
- EN 15942:2012 Sustainability of construction works - Environmental product declarations - Communication format business-to-business
- EN 14351-1+A2:2016-10 Windows and doors. Product standard, performance characteristics - Part 1: Windows and external pedestrian doorsets
- EN 1634-1+A1:2018-03 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 1125 Building hardware - Panic exit devices operated by a horizontal bar, for use on escape routes - Requirements and test methods

  
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**KIEROWNIK**  
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**CERTIFICATE № 316/2022**  
**of TYPE III ENVIRONMENTAL DECLARATION**

Product:

**Steel non fire resistant doors DFM DS00**

**Steel fire resistant doors DFM DS30, DFM DS60, DFM DS120**

Manufacturer:

**DFM Doors Sp. z o.o.**

Grzegorza z Sanoka 2, 80-408 Gdańsk, Poland

confirms the correctness of the data included in the development of  
Type III Environmental Declaration and accordance with the requirements of the standard

**EN 15804**

**Sustainability of construction works.**

**Environmental product declarations.**

**Core rules for the product category of construction products.**

This certificate, issued for the first time on 1<sup>st</sup> April 2022 is valid for 5 years  
or until amendment of mentioned Environmental Declaration

Head of the Thermal Physic, Acoustics  
and Environment Department

  
Agnieszka Winkler-Skalna, PhD



Deputy Director  
for Research and Innovation

  
Krzysztof Kuczyński, PhD

Warsaw, April 2022