

DELABIE

ENVIRONMENTAL AND HEALTH PRODUCT DECLARATION

In compliance with standards NF EN ISO 14025, NF EN 15804+A2
and its national addition NF EN 15804+A2/CN
and checked by a person authorised by INIES

Seats/stools in PP with aluminium base and seats in ABS with aluminium base

by DELABIE



INIES registration number: **20250745999**
Publication date: **Décembre 2025**
Version: **1.0**

Produced by: **Vincent Challet**

WARNING

The information contained in this declaration is provided under the responsibility of DELABIE (producer of the EPD) according to NF EN 15804+A2 and its national addition NF EN 15804+A2/CN.

Any use made of all or part of the information provided in this document must include at least the full reference of the original EPD, and its producer, who will be able to provide a full copy.

Standard NF EN 15804+A2 of the CEN and the national addition NF EN 15804+A2/CN are used as rules for the definition of the product categories (PCR).

Note: The literal translation of “EPD” (Environnemental Product Declaration) in French is “DEP” (Déclaration Environnementale de Produit). However, in France, the term routinely used is FDES (Fiche de Déclaration Environnementale et Sanitaire) which covers both the environmental declaration and the health information for the product which is the focus of this EPD. The “FDES” is therefore an EPD supplemented by health information.

You are reminded that the results of the study are based only on the facts, circumstances and assumptions which were submitted during the study. If these facts, circumstances and assumptions differ, the results are likely to change.

READER'S GUIDE

The display of the inventory data complies with the requirements of standard NF EN 15804+A2. In the following tables, 3.15E-06 should be read: 3.15×10^{-6} (scientific writing).

The **units** used are specified before each flow. They are:

- Kilogram: kg
- Cubic metre: m³
- Kilowatt-hour: kWh
- Megajoule: MJ
- Square metre: m²
- Kelvin: K

Abbreviations:

- LCA: Life Cycle Assessment
- RSL: Reference Service Life
- CF: Characterisation Factor
- FU: Functional Unit
- NCV: Net Calorific Value
- EN: European standard

PRECAUTION FOR USE OF THE EPD FOR THE COMPARISON OF PRODUCTS

Construction product EPDs may not be comparable if they are not compliant with standard NF EN 15804+A2.

Standard NF EN 15804+A2 defines, in § 5,3 Comparability of EPDs* for Construction Products, the conditions in which construction products can be compared, based on the information provided by the EPD:

“Consequently, a comparison of the environmental performance of construction products using the information in the EPDs must be based on the usage of the products and their impacts on the building and must take into account the entire life cycle (all the information modules).”

Note 1: Outside the context of the environmental assessment of a building, EPDs are not tools which can be used to compare construction products and services.

Note 2: For the assessment of the contribution of buildings to sustainable development, a comparison of the environmental aspects and impacts must be undertaken in conjunction with the socio-economic aspects and impacts relative to the building.

Note 3: Reference values are necessary for the interpretation of a comparison.

CONTENTS

I.	GENERAL INFORMATION.....	4
II.	DESCRIPTION OF THE FUNCTIONAL UNIT AND THE PRODUCT	6
III.	LIFE CYCLE STAGE.....	8
	LIFE CYCLE DIAGRAM	8
	PRODUCTION STAGE, A1-A3	9
	CONSTRUCTION STAGE, A4-A5	9
	USE STAGE, B1-B7	10
	END OF LIFE STAGE, C1-C4	11
	RECYCLING/REUSE/RECOVERY POTENTIAL, D.....	12
IV.	INFORMATION FOR THE CALCULATION OF THE LIFE CYCLE ASSESSMENT	13
V.	ADDITIONAL INFORMATION CONCERNING THE RELEASE OF HAZARDOUS SUBSTANCES IN THE INDOOR AIR, SOIL AND WATER DURING THE USAGE STAGE.....	20
VI.	CONTRIBUTION OF THE PRODUCT TO QUALITY OF LIFE INSIDE THE BUILDINGS.....	20

I. GENERAL INFORMATION

This declaration is an individual declaration for a range of similar products covering the life cycle of the product "from cradle to grave". It is based on a validity framework defined in accordance with the decree of 23 December 2013 relative to the environmental declaration for construction and decoration products intended for use in building works, applied to the range of products covered by this EPD.

1. NAME AND ADDRESS OF THE MANUFACTURER

DELABIE France
18 Rue du Maréchal Foch,
80130 Friville-Escarbotin

Website : <https://www.delabie.fr>
Tel. +33 (0)3 22 60 22 70

2. THE SITE(S), THE MANUFACTURER OR THE GROUP OF MANUFACTURERS OR THEIR REPRESENTATIVES FOR WHICH THE EPD IS REPRESENTATIVE

DELABIE France
18 Rue du Maréchal Foch,
80130 Friville-Escarbotin France

3. TYPE OF EPD

From cradle to grave with module D

4. TYPE OF EPD

Individual product of the range

5. VERIFICATION DATE

2 decembre 2025

6. PUBLICATION DATE

Decembre 2025

7. END OF VALIDITY DATE

31 decembre 2030

8. SUPPLY CHAIN DISTRIBUTION

B TO B

9. THE COMMERCIAL REFERENCES OF THE PRODUCTS

The EPD is representative of the range of seats and stools in aluminium.

Designation	Reference
ALU shower stool	510418
Lift-up shower seat, with ALU leg	510400
Lift-up shower seat, with ALU leg	510405
Lift-up shower seat with ALU leg- Large model	510410
Be-line® lift-up shower seat with leg	511930C
Be-line® lift-up shower seat with leg	511930W
Be-line® lift-up shower seat with leg	511930BK
Be-line® lift-up shower seat	511920C
Be-line® lift-up shower seat	511920W
Be-line® lift-up shower seat	511920BK

10. THE NAME OF THE PROGRAMME

FDES publisher: Inies program - www.inies.fr

Operator: Alliance HQE-GBC - www.hqegbc.org

4 avenue du Recteur Poincaré, 75016 PARIS

INIES registration number: 20250745999

11. VERIFICATION

Standard EN 15804 of the CEN is used as RCP^{a)}.

Independent verification of the déclaration in accordance with EN ISO 14025 : 2010

☐ Interne ☒ Externe



(Depending on the case
b))

Third-party verification:
Cécile Beaudard

a) Rules for the definition of the product categories

b) Optional for communication between companies, obligatory for communication between a company and its customers (see standard ISO 14025: 2010, 9.4)

II. DESCRIPTION OF THE FUNCTIONAL UNIT AND THE PRODUCT

1. DESCRIPTION OF THE FUNCTIONAL UNIT (OR DECLARED UNIT)

“ To allow the maintenance of a seated position for a person with reduced mobility, with a maximum weight of 135 kg, during the shower period and/or undressing, over a reference service life of 20 years.

The Functional Unit includes:

- The reference flow of the studied product,
- The packaging of the product and the raw materials required for the manufacturing and installation of the product,
- The loss rates during manufacturing and implementation,
- The materials, energy and water required for implementation and maintenance”.

2. MAIN PERFORMANCE OF THE FUNCTIONAL UNIT

Support for a person with reduced mobility (PRM) with a maximum weight of 135 kg, in accordance with EN ISO 21856.

3. DESCRIPTION OF THE PRODUCT AND THE PACKAGING

The products are aluminium seats and stools manufactured by Delabie. The packaging of the finished products consists mainly of cardboard and plastic bags.

4. DESCRIPTION OF THE USAGE OF THE PRODUCT (FIELD OF APPLICATION)

The declared products provide support for a person with reduced mobility (PRM). The installation site may be in bathrooms, fitting rooms and/or changing rooms. Use and installation take place mainly in France.

5. OTHER TECHNICAL CHARACTERISTICS NOT INCLUDED IN THE FUNCTIONAL UNIT

None

6. EVIDENCE OF FITNESS FOR USE

The products have passed internal quality controls. The covered products bear the CE marking in accordance with the certification rules of ISO 21856.

7. DESCRIPTION OF THE MAIN COMPONENTS AND/OR MATERIALS OF THE PRODUCT

The reference flow consists of 3.41 kg of aluminium seats and stools, corresponding to the product with the maximum impacts among the commercial references covered by this range FDES.

Parameter	Units	Valeur
Quantity of the product	kg	3,41
Main components	kg	Metal (47%) : 1,82 Plastic (53%) : 1,59
Quantity of complementary products	kg	/
Composition of the packaging	kg	Plastic (9%) : 0,046 Cardboard (91%) : 0,46
Offcut and loss rate during implementation	%	0

8. SPECIFY IF THE PRODUCT CONTAINS SUBSTANCES ON THE REACH CANDIDATE LIST (IF HIGHER THAN 0.1% BY WEIGHT)

On the date of publication of the EPD, no substance in the product appeared in the candidate list of Substances of Very High Concern subject to authorisation”.

9. DESCRIPTION OF THE REFERENCE SERVICE LIFE (IF APPLICABLE AND IN ACCORDANCE WITH § 7.2.2 OF STANDARD NF EN 15804+A2)

Parameter	Value
Reference service life	20 years
Declared properties of the product (when leaving the factory) and finishes, etc.	The product has successfully passed the internal quality controls The covered products bear the CE marking.
Theoretical application parameter (if imposed by the manufacturer), including references to the appropriate requirements and application codes.	Installation, according to the state of the art NF DTU 60.1 (Sanitary plumbing in buildings)
Presumed quality of the work if installation is compliant with the manufacturer's instructions	The quality of the work is assumed to be compliant with the manufacturer's recommendations
Indoor environment (for indoor applications). For example, temperature, humidity, exposure to chemical products	Conditions corresponding to typical tertiary use in metropolitan France
Outdoor environment (for outdoor applications). For example, bad weather, pollutants, exposure to UV rays and wind, orientation of the building, shade, temperature	Not concerned
Conditions of use. For example, frequency of use, mechanical exposure	Standard use
Maintenance scenario. For example, required frequency, type, quality and replacement of replaceable components	Cleaning with slightly warm soapy water, once a week, using 0.1 liter of water with 1% soap.

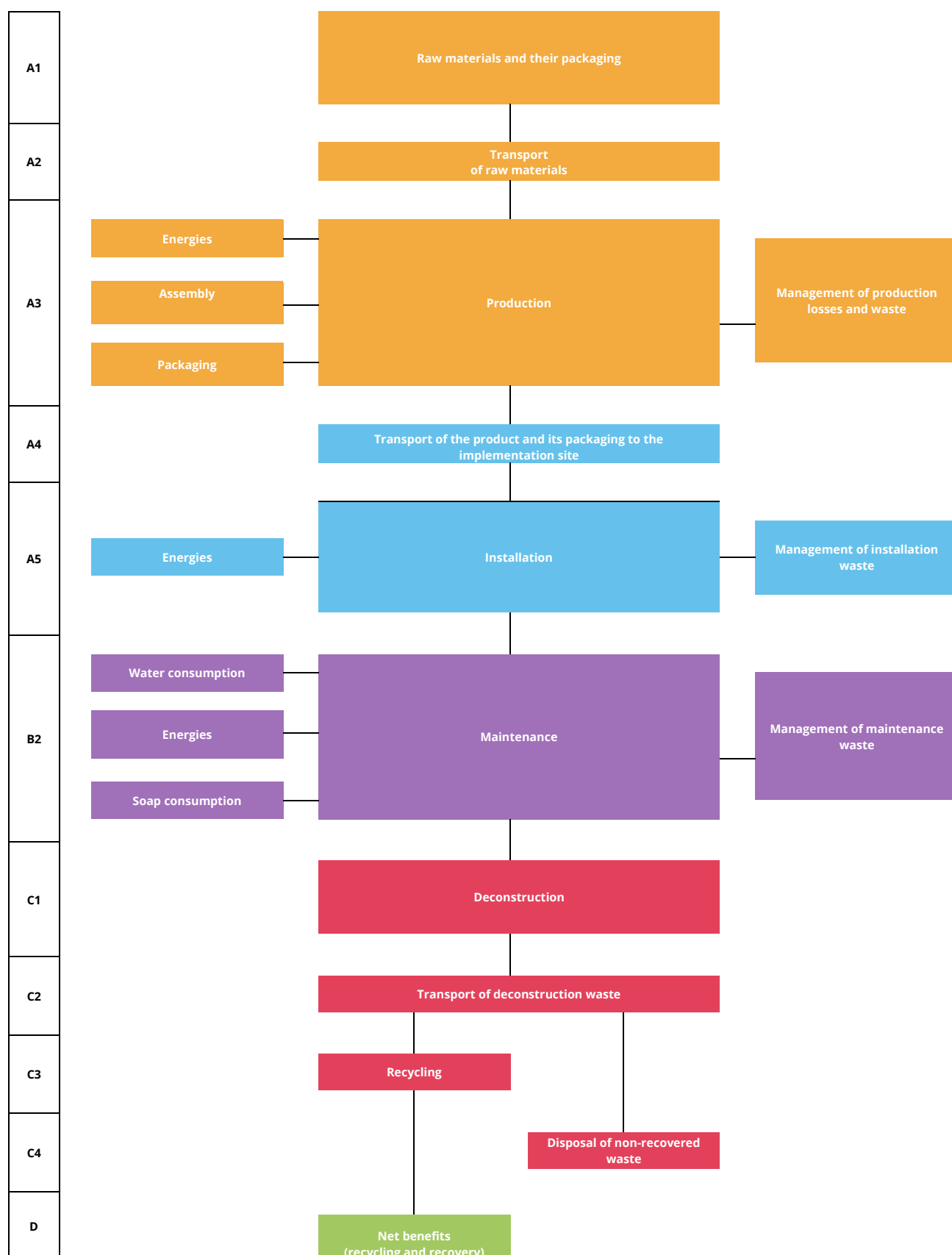
10. INFORMATION CONCERNING THE BIOGENIC CARBON CONTENT

Biogenic carbon content	Value
Biogenic carbon content of the product (when leaving the factory)	0 kg C
Biogenic carbon content of the related packaging (when leaving the factory)	0,20 kg C

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

III. LIFE CYCLE STAGE

LIFE CYCLE DIAGRAM



Product stage	Construction process stage		Use stage							End of life stage				Resource recovery stage
Total A1-A3	Transport to the installation site	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction/ Demolition	Transport to waste treatment	Waste processing	Disposal	
A1/A2/A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

PRODUCTION STAGE, A1-A3

Stages A1 to A3 include all the processes from extraction of the raw materials to their processing in the factory. This includes the transport of the components from the supplier to the production site and the production of auxiliary inputs or pre-products, manufacture of products and co-products, internal transport and manufacture of the packaging of the raw materials and the finished product.

CONSTRUCTION STAGE, A4-A5

• Transport to the construction site, A4

Stage A4 includes transport from the factory door to the construction site and involves the following assumptions.

Parameter	Value
Type of fuel and consumption of the vehicle or type of vehicle used for transport. For example, long-haul lorry, ship, etc.	The vehicles considered are trucks with a payload capacity of 16–32 tonnes for the journey. The representation of vehicle specifications is as follows: <ul style="list-style-type: none"> • EURO 6: 96,3% • EURO 5: 3,4 % • EURO 4: 0,3 %
Distance to the construction site	1,000 km is the distance taken from standard NF EN 15804+A2/CN
Use of the capacity (including empty returns)	60%
Bulk density of the transported products	Not calculated
Density capacity utilisation coefficient	/

• Installation in the building, A5

Stage 5 includes the processing of waste generated during packaging of the products, product offcuts and the installation of the product. This involves the following assumptions.

Parameter	Value
Auxiliary inputs for installation (specified by material)	None
Water usage	0 m3
Use of other resources	None
Quantitative description of the type of energy (regional mix) and consumption during the installation process	Installation operations – Electricity consumption from the French energy

d'installation	mix: 0,375 Wh
Waste produced on the construction site before the processing of waste generated by the installation of the product (specified by type)	0 kg Loss rate during installation: 0%
Materials (specified by type) produced by the processing of waste on the construction site. For example, collection for recycling, energy recovery, disposal (specified by channel)	Cardboard and paper packaging: <ul style="list-style-type: none"> • 92% Recycling • 4% Incineration for energy recovery (MWIP) • 4% Landfilling Plastic packaging: <ul style="list-style-type: none"> • 27% Recycling • 43% Incineration for energy recovery (MWIP) • 30% Landfilling
Direct emissions into the ambient air, soil and water	None

USE STAGE, B1-B7

• Use, B1

No use or application of the installed product takes place during the reference service life.

• Maintenance, B2

Maintenance includes the weekly cleaning cycle with soapy water and involves the following assumptions:

Scenario Information	Units
Maintenance process	Weekly cleaning with slightly warm soapy water
Maintenance cycle	Cleaning with hot soapy water, once per week (0.1 litre of water with 1% soap)
Auxiliary inputs for maintenance (e.g. cleaning product, specify materials)	Cleaning with soapy water: Water: 104 kg Soap: 10,4 kg
Waste generated during maintenance (specify materials)	Not applicable
Net freshwater consumption during maintenance	0,104 m3
Energy input during maintenance (e.g. vacuum cleaning), type of energy carrier (e.g. electricity), and quantity, if applicable and relevant.	3 kWh

• Repair, B3

No repair of the products takes place during the reference service life.

• Replacement, B4

No replacement of the products takes place during the reference service life.

- **Refurbishment, B5**

No rehabilitation of the products takes place during the reference service life.

- **Operational energy use, B6**

The products do not consume energy during their use.

- **Operational water use, B7**

The products do not consume water during their use.

END OF LIFE STAGE, C1-C4

Module C1 (demolition and deconstruction) is not relevant for the product in question as deconstruction is performed manually and only tools are required.

Stages C2 to C4 include transport to the waste processing area, the waste processing stages and disposal of the waste.

The end-of-life scenarios are taken from ADEME2020 and NF EN 15804+A2/CN.

For disposal scenarios in France, the distance which can be applied is:

- Transport of non-hazardous waste: 50 km

It is assumed that:

Steel and stainless steel components are:

- 99 % sent to recycling
- 1 % sent to landfill

Aluminium components are:

- 96 % sent to recycling
- 4 % sent to landfill

Plastic components are:

- 27 % sent to recycling
- 43 % sent to material recovery
- 30 % sent to landfill

Parameter	Value
Collection process specified by type	3,41 kg collected individually 0 kg collected with mixed construction waste
Recovery system specified by type	0 kg for reuse 2,18 kg for recycling 0,68 kg for recovery
Disposal specified by type	0,55 kg of product for final disposal

RECYCLING/REUSE/RECOVERY POTENTIAL, D

Stage D includes the environmental impacts and benefits of the product beyond the product life cycle. This may be applied to all the outputs from the modules (except for A1-A3). No benefit related to energy recovery from incineration processes is considered.

A negative value shows a benefit of this stage.

Recovered materials beyond the system boundaries	Recycling process beyond the system boundaries	Materials/energy saved	Related quantities
Recycled Stainless steel	Transport 50 km	Production of primary stainless steel	0,096 kg
Recycled Aluminium	Transport 50 km	Production of primary aluminium	1,65 kg
Recycled plastic Recycled packaging plastic	Transport 50 km	Production of primary plastic	0,44 kg
Recycled cardboard	Transport 50 km	Production of primary cardboard	0,42 kg
Incineration with energy and heat recovery	None	Electricity and heat consumption	0,72 kg

IV. INFORMATION FOR THE CALCULATION OF THE LIFE CYCLE ASSESSMENT

PCR used	NF EN 15804+A2: 2019 and its national addition NF EN 15804+A2/CN: 2022
System boundaries	<p>The system boundaries comply with the limits imposed by standard NF EN 15804+A2 and its national complement NF EN 15804+A2/CN.</p> <p>The following processes have been considered outside the boundaries for stage A3:</p> <ul style="list-style-type: none"> • Lighting and heating of the manufacturing site <p>Transport of employees and products within the company</p>
Cut-off rule	The cut-off rule used in this EPD is that defined in standard NF EN 15804+A2.
Allocation	The allocation rules applied in this FDES are those defined by standards NF EN 15804+A2 and NF EN 15804+A2/CN. No allocation has been carried out.
Geographical representativeness and temporal representativeness of the primary data	<p>Life Cycle Assessment software: SimaPro version 10.2.0.1</p> <p>Database: Ecoinvent version 3.10</p> <p>Software used for the preparation of the FDES: Method Ev-DEC EN15804 A2 EF3.1 ei3.11 SP10 FDES</p> <p>Representation of LCI data:</p> <p>Geographical representativeness:</p> <ul style="list-style-type: none"> • Assembly: Friville (FR) • Implementation: France (FR) <p>Temporal representativeness: The production data represent 100% of DELABIE's production at its Friville-Escarbotin site from January 2023 to January 2024.</p>
Variabilité des résultats	<p>A variability analysis of the results was carried out for the preparation of this FDES. The four indicators considered are:</p> <ul style="list-style-type: none"> • Total climate change • Total use of non-renewable primary energy • Generation of non-hazardous waste disposed • Depletion of abiotic resources – minerals and metals <p>The variability study revealed that the weighted average product, based on sales volumes, showed variations exceeding the limits set by standard NF EN 15804+A2 and its national complement for the four indicators mentioned above (variation greater than 1.35 times the impacts of the weighted average product).</p> <p>Consequently, the product with the highest impacts was selected as representative of the range.</p> <p>The observed variability is as follows:</p> <p>Variability for total climate change: +0%/-26,8%</p> <p>Variability for total use of non-renewable primary energy: +0%/-99,6%</p> <p>Variability for generation of non-hazardous waste disposed: +0%/-36,1%</p> <p>Variability for depletion of abiotic resources – minerals and metals: +0%/-5,6%</p>

I. RESULT OF THE LIFE CYCLE ANALYSIS

The tables below present the results of the life cycle assessment of aluminium seats and stools.

Due to rounding, totals may not correspond exactly to the sum of the rounded values.

Reference environmental impacts														
Parameters	Product stage	Construction process stage		Use stage							End of life stage			
Indicator	Total A1-A3	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction/ Demolition	Transport	Waste processing	Disposal
	A1/A2/A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4
Global Warming Potential land use and land use change <i>kg CO2 equiv/UF</i>	4,69E+01	7,31E-01	7,99E-01	0	3,94E+01	0	0	0	0	0	0	3,18E-02	1,11E-01	6,34E-01
Global Warming Potential fossil fuels <i>kg CO2 equiv/UF</i>	4,74E+01	7,31E-01	2,71E-02	0	1,24E+01	0	0	0	0	0	0	3,18E-02	1,11E-01	3,74E-01
Global Warming Potential biogenic <i>kg CO2 equiv/UF</i>	-6,84E-01	1,56E-04	7,72E-01	0	1,59E-01	0	0	0	0	0	0	6,79E-06	3,42E-05	2,60E-01
Global Warming Potential land use and land use change <i>kg CO2 equiv/UF</i>	1,15E-01	2,46E-04	2,25E-06	0	2,69E+01	0	0	0	0	0	0	1,07E-05	3,44E-05	6,41E-06
Depletion potential of the stratospheric ozone layer <i>kg CFC11 equiv/UF</i>	4,41E-07	1,59E-08	1,64E-10	0	2,71E-07	0	0	0	0	0	0	6,95E-10	2,47E-09	5,60E-10
Acidification potential, Accumulated Exceedance <i>mol H+ equiv/UF</i>	3,18E-01	1,57E-03	3,31E-05	0	1,73E-01	0	0	0	0	0	0	6,97E-05	4,58E-04	2,59E-04
Eutrophication potential, fraction of nutrients reaching freshwater end compartment <i>kg P equiv/UF</i>	1,60E-03	5,44E-06	1,35E-07	0	2,92E-03	0	0	0	0	0	0	2,37E-07	9,10E-07	1,42E-06
Eutrophication potential, fraction of nutrients reaching marine end compartment <i>kg N equiv/UF</i>	5,51E-02	3,70E-04	3,74E-05	0	2,20E-01	0	0	0	0	0	0	1,68E-05	1,70E-04	4,83E-04
Eutrophication potential, accumulated exceedance <i>mol N equiv/UF</i>	6,42E-01	4,10E-03	1,30E-04	0	6,62E-01	0	0	0	0	0	0	1,86E-04	1,86E-03	1,13E-03

Formation potential of tropospheric ozone kg NMVOC equiv/UF	1,98E-01	2,49E-03	5,15E-05	0	9,91E-02	0	0	0	0	0	0	1,10E-04	6,68E-04	4,00E-04	-4,48E-02
Abiotic depletion potential for non-fossil resources - minerals et metals kg Sb equiv/UF	8,39E-02	2,57E-06	2,58E-08	0	1,54E-04	0	0	0	0	0	0	1,12E-07	3,52E-07	8,19E-08	2,99E-05
Abiotic depletion for fossil resources potential MJ/UF	5,85E+02	1,04E+01	1,07E-01	0	1,51E+02	0	0	0	0	0	0	4,52E-01	2,65E+00	3,26E-01	-1,55E+02
Water (user) deprivation potential, deprivation-weighted water consumption m3 /UF	7,82E+00	4,14E-02	3,51E-04	0	4,26E+01	0	0	0	0	0	0	1,80E-03	1,37E-02	9,18E-04	-1,26E+00

Additional environmental impacts															
Parameters	Product stage	Construction process stage		Use stage							End of life stage				Resource recovery stage
Indicator	Total A1-A3	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy	Operational water	De-construction/ Demolition	Transport	Waste processing	Disposal	
	A1/A2/A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Particulate matter disease inc/ UF	4,76E-06	5,45E-08	5,66E-10	0	2,85E-06	0	0	0	0	0	0	2,38E-09	1,06E-08	2,71E-09	-1,93E-06
Ionising radiation kBq U-235 equiv/UF	5,77E-01	4,54E-03	1,18E-04	0	4,91E-01	0	0	0	0	0	0	1,98E-04	1,27E-02	5,72E-04	-2,81E-01
Ecotoxicity, freshwater CTUe/UF	1,95E+02	1,39E+00	1,26E-01	0	6,77E+02	0	0	0	0	0	0	6,07E-02	1,94E-01	6,38E+00	-1,22E+01
Human toxicity, cancer CTUh/UF	2,58E-08	1,22E-10	6,40E-12	0	3,28E-08	0	0	0	0	0	0	5,32E-12	1,89E-11	9,46E-11	-6,79E-09
Human toxicity, non-cancer CTUh/UF	5,98E-07	6,52E-09	2,91E-10	0	5,37E-07	0	0	0	0	0	0	2,84E-10	7,84E-10	4,17E-09	-6,82E-08
Land use Pt/UF	1,43E+02	6,23E+00	6,79E-02	0	1,73E+03	0	0	0	0	0	0	2,71E-01	6,12E-01	4,30E-01	-6,37E+01

Use of resources															
Parameters	Product stage	Construction process stage		Use stage							End of life stage				Resource recovery stage
Indicator	Total A1-A3	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy	Operational water	De-construction/ Demolition	Transport	Waste processing	Disposal	
	A1/A2/A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Use of renewable primary energy excluding renewable primary energy resources used as raw materials MJ/UF	5,64E+01	1,71E-01	5,74E-01	0	8,25E+02	0	0	0	0	0	0	7,46E-03	1,20E-01	2,26E-02	- 2,34E+01
Use of renewable primary energy resources used as raw materials MJ/UF	6,72E+00	0,00E+00	- 7,13E+00	0	0,00E+00	0	0	0	0	0	0	0,00E+00	0,00E+00	0,00E+00	6,16E-17
Total use of renewable primary energy resources MJ/UF	6,31E+01	1,71E-01	- 6,56E+00	0	8,25E+02	0	0	0	0	0	0	7,46E-03	1,20E-01	2,26E-02	- 2,34E+01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials MJ/UF	5,15E+02	1,04E+01	1,39E+00	0	1,83E+02	0	0	0	0	0	0	4,52E-01	2,64E+00	4,86E+01	- 1,55E+02
Use of non-renewable primary energy resources used as raw materials MJ/UF	6,85E+01	0,00E+00	- 1,76E+00	0	0,00E+00	0	0	0	0	0	0	0,00E+00	0,00E+00	- 4,83E+01	0,00E+00
Total use of non-renewable primary energy re-sources MJ/UF	5,84E+02	1,04E+01	-3,69E-01	0	1,83E+02	0	0	0	0	0	0	4,52E-01	2,64E+00	3,26E-01	- 1,55E+02
Use of secondary material kg/UF	3,22E-01	0,00E+00	0,00E+00	0	0,00E+00	0	0	0	0	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels MJ/UF	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0	0	0	0	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non-renewable secondary fuels MJ/UF	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0	0	0	0	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00

Use of net fresh water m3/UF	2,88E-01	1,31E-03	-9,01E-05	0	1,71E+00	0	0	0	0	0	0	5,71E-05	6,36E-04	-1,67E-03	-5,47E-02
------------------------------	----------	----------	-----------	---	----------	---	---	---	---	---	---	----------	----------	-----------	-----------

Waste production															
Parameters	Product stage	Construction process stage		Use stage							End of life stage				Resource recovery stage
Indicator	Total A1-A3	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy	Operational water use	De-construction/ Demolition	Transport	Waste processing	Disposal	
	A1/A2/A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Hazardous waste disposed kg/UF	2,74E-02	3,24E-04	9,29E-03	0	6,41E-02	0	0	0	0	0	0	1,41E-05	4,30E-05	1,68E-01	1,68E-01
Non hazardous waste disposed kg/UF	4,82E+01	6,20E-01	3,81E-02	0	1,37E+01	0	0	0	0	0	0	2,70E-02	6,15E-02	5,76E-01	- 1,11E+01
Radioactive waste disposed kg/UF	3,70E-04	3,09E-06	1,04E-07	0	5,40E-04	0	0	0	0	0	0	1,35E-07	1,61E-05	3,25E-07	-2,51E-04

Output flows															
Parameters	Product stage	Construction process stage		Use stage							End of life stage				Resource recovery stage
Indicator	Total A1-A3	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy	Operational water use	De-construction/ Demolition	Transport	Waste processing	Disposal	
	A1/A2/A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Components for re-use kg/UF	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0	0	0	0	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling kg/UF	0,00E+00	0,00E+00	4,36E-01	0	0,00E+00	0	0	0	0	0	0	0,00E+00	2,18E+00	0,00E+00	0,00E+00
Materials for energy recovery kg/UF	0,00E+00	0,00E+00	3,82E-02	0	0,00E+00	0	0	0	0	0	0	0,00E+00	0,00E+00	6,83E-01	0,00E+00
Exported energy, electricity MJ/UF	0,00E+00	0,00E+00	5,46E-02	0	0,00E+00	0	0	0	0	0	0	0,00E+00	0,00E+00	9,75E-01	0,00E+00
Exported energy, thermal MJ/UF	0,00E+00	0,00E+00	1,70E-01	0	0,00E+00	0	0	0	0	0	0	0,00E+00	0,00E+00	2,28E+01	0,00E+00
Exported energy, gas and process MJ/UF	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0	0	0	0	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00

Environmental impact						
Aggregation of the various modules to produce a « Stage Total » or « Lifecycle »						
Impacts/ Flows	Product stage	Construction process stage	Use stage	End of life stage	Total cycle de vie	Resource recovery stage
Reference environmental impacts						
Global Warming Potential land use and land use change kg CO2 equiv/UF	4,69E+01	1,53E+00	3,94E+01	7,77E-01	8,86E+01	-1,18E+01
Global Warming Potential fossil fuels kg CO2 equiv/UF	4,74E+01	7,58E-01	1,24E+01	5,17E-01	6,11E+01	-1,18E+01
Global Warming Potential biogenic kg CO2 equiv/UF	-6,84E-01	7,72E-01	1,59E-01	2,60E-01	5,06E-01	-5,24E-03
Global Warming Potential land use and land use change kg CO2 equiv/UF	1,15E-01	2,48E-04	2,69E+01	5,15E-05	2,70E+01	-3,09E-02
Depletion potential of the stratospheric ozone layer kg CFC11 equiv/UF	4,41E-07	1,61E-08	2,71E-07	3,72E-09	7,32E-07	-1,08E-07
Acidification potential, Accumulated Exceedance mol H+ equiv/UF	3,18E-01	1,60E-03	1,73E-01	7,87E-04	4,93E-01	-7,57E-02
Eutrophication potential, fraction of nutrients reaching freshwater end compartment kg P equiv/UF	1,60E-03	5,57E-06	2,92E-03	2,57E-06	4,53E-03	-4,15E-04
Eutrophication potential, fraction of nutrients reaching marine end compartment kg N equiv/UF	5,51E-02	4,08E-04	2,20E-01	6,69E-04	2,76E-01	-1,18E-02
Eutrophication potential, accumulated exceedance mol N equiv/UF	6,42E-01	4,23E-03	6,62E-01	3,18E-03	1,31E+00	-1,33E-01
Formation potential of tropospheric ozone kg NMVOC equiv/UF	1,98E-01	2,54E-03	9,91E-02	1,18E-03	3,01E-01	-4,48E-02
Abiotic depletion potential for non-fossil resources - minerals et metals kg Sb equiv/UF	8,39E-02	2,60E-06	1,54E-04	5,46E-07	8,41E-02	2,99E-05
Abiotic depletion for fossil resources potential MJ/UF	5,85E+02	1,05E+01	1,51E+02	3,42E+00	7,50E+02	-1,55E+02
Water (user) deprivation potential, deprivation-weighted water consumption m3 /UF	7,82E+00	4,18E-02	4,26E+01	1,64E-02	5,05E+01	-1,26E+00
Additional environmental impacts						
Particulate matter disease inc/ UF	4,76E-06	5,51E-08	2,85E-06	1,57E-08	7,69E-06	-1,93E-06
Ionising radiation kBq U-235 equiv/UF	5,77E-01	4,66E-03	4,91E-01	1,35E-02	1,09E+00	-2,81E-01
Ecotoxicity, freshwater CTUe/UF	1,95E+02	1,52E+00	6,77E+02	6,63E+00	8,80E+02	-1,22E+01
Human toxicity, cancer CTUh/UF	2,58E-08	1,28E-10	3,28E-08	1,19E-10	5,88E-08	-6,79E-09

Human toxicity, non-cancer CTUh/UF	5,98E-07	6,81E-09	5,37E-07	5,24E-09	1,15E-06	-6,82E-08
Land use Pt/UF	1,43E+02	6,30E+00	1,73E+03	1,31E+00	1,88E+03	-6,37E+01
Use of resources						
Use of renewable primary energy excluding renewable primary energy resources used as raw materials MJ/UF	5,64E+01	7,45E-01	8,25E+02	1,51E-01	8,82E+02	-2,34E+01
Use of renewable primary energy resources used as raw materials MJ/UF	6,72E+00	-7,13E+00	0,00E+00	0,00E+00	-4,19E-01	6,16E-17
Total use of renewable primary energy resources MJ/UF	6,31E+01	-6,39E+00	8,25E+02	1,51E-01	8,82E+02	-2,34E+01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials MJ/UF	5,15E+02	1,18E+01	1,83E+02	5,17E+01	7,61E+02	-1,55E+02
Use of non-renewable primary energy resources used as raw materials MJ/UF	6,85E+01	-1,76E+00	0,00E+00	- 4,83E+01	1,84E+01	0,00E+00
Total use of non-renewable primary energy re-sources MJ/UF	5,84E+02	1,00E+01	1,83E+02	3,42E+00	7,80E+02	-1,55E+02
Use of secondary material kg/UF	3,22E-01	0,00E+00	0,00E+00	0,00E+00	3,22E-01	0,00E+00
Use of renewable secondary fuels MJ/UF	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non-renewable secondary fuels MJ/UF	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water m3/UF	2,88E-01	1,22E-03	1,71E+00	-9,73E- 04	2,00E+00	-5,47E-02
Waste production						
Hazardous waste disposed kg/UF	2,74E-02	9,61E-03	6,41E-02	1,68E-01	2,69E-01	1,68E-01
Non hazardous waste disposed kg/UF	4,82E+01	6,59E-01	1,37E+01	6,65E-01	6,32E+01	-1,11E+01
Radioactive waste disposed kg/UF	3,70E-04	3,20E-06	5,40E-04	1,66E-05	9,29E-04	-2,51E-04
Output flows						
Components for re-use kg/UF	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling kg/UF	0,00E+00	4,36E-01	0,00E+00	2,18E+00	2,61E+00	0,00E+00
Materials for energy recovery kg/UF	0,00E+00	3,82E-02	0,00E+00	6,83E-01	7,21E-01	pa
Exported energy, electricity MJ/UF	0,00E+00	5,46E-02	0,00E+00	9,75E-01	1,03E+00	0,00E+00
Exported energy, thermal MJ/UF	0,00E+00	1,70E-01	0,00E+00	2,28E+01	2,29E+01	0,00E+00
Exported energy, gas and process MJ/UF	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

V. ADDITIONAL INFORMATION CONCERNING THE RELEASE OF HAZARDOUS SUBSTANCES IN THE INDOOR AIR, SOIL AND WATER DURING THE USAGE STAGE

INDOOR AIR EMISSIONS

The products are not subject to the labelling requirements for construction products, wall or floor coverings, and paints and varnishes regarding their emissions of volatile pollutants. No emission testing has been carried out on the products.

EMISSIONS INTO SOIL AND WATER

- Release in the soil

Product not concerned

- Release in water

The different product families are in contact with wastewater. No testing has been carried out, but emissions are estimated to be negligible, as the products comply with technical standards and do not contain any SVHC substances (REACH) above 0.1%.

VI. CONTRIBUTION OF THE PRODUCT TO QUALITY OF LIFE INSIDE THE BUILDINGS

1. CHARACTERISTICS OF THE PRODUCT PARTICIPATING IN THE CREATION OF HYGROTHERMAL COMFORT CONDITIONS IN THE BUILDING

The products covered by this document do not make any claims with regard to hygrothermal performance.

2. CHARACTERISTICS OF THE PRODUCT PARTICIPATING IN THE CREATION OF ACOUSTIC COMFORT CONDITIONS IN THE BUILDING

The products covered by this document do not make any claims with regard to acoustic performance.

3. CHARACTERISTICS OF THE PRODUCT PARTICIPATING IN THE CREATION OF VISUAL COMFORT CONDITIONS IN THE BUILDING

The variety of designs and shapes proposed mean the products covered by this document can be aesthetically matched to their environment.

4. CHARACTERISTICS OF THE PRODUCT PARTICIPATING IN THE CREATION OF OLFACTORY COMFORT CONDITIONS IN THE BUILDING

The products covered by this document do not make any claims with regard to olfactory performance.