Texaa®

# ENVIRONMENTAL AND HEALTH PRODUCT DECLARATION

FICHE DE DECLARATION ENVIRONNEMENTALE ET SANITAIRE

## Vibrasto 55 acoustic cladding (with installation accessories)

In accordance with standards NF EN ISO 14025,
NF EN 15804+A2 and its national French addition NF EN 15804+A2/CN

Individual EHPD
January 2026

EHPD version : 1.0
INIES registration number : 20260148507

**EHPD MADE BY :**
FRD-CODEM
56 rue André Durouchez
80080 AMIENS
Tél : +33 (0)3.64.57.12.60

# 1. Warning

The information contained in this declaration is provided under the responsibility of the company “TEXAA” (producer of the EHPD) in accordance with NF EN 15804+A2 and the national supplement NF EN 15804+A2/CN.

Any use, in whole or in part, of the information provided in this document must be accompanied by a complete reference to the original EHPD and its producer, who can provide a complete copy.

It should be noted that the results of the study are based solely on facts, circumstances, and assumptions that were submitted during the study. If these facts, circumstances, and assumptions differ, the results are likely to change.

Furthermore, the results of the study should be considered as a whole, in light of the assumptions, and not taken in isolation.

The CEN standard EN 15804+A2 serves as the Rules for the Definition of Product Categories (RCP).

*NOTE:* 'EPD' is more commonly used than 'EHPD' in English to refer to an Environmental Product Declaration. The literal translation of 'EPD' (Environmental Product Declaration) into French is 'DEP' (Déclaration Environnementale de Produit). However, in France, the term FDES (Fiche de Déclaration Environnementale et Sanitaire) is more common because it combines environmental and health information about the product. Therefore, the FDES is an EPD supplemented by health information, which becomes an EHPD in English.

# 2. Reading guide

The display of inventory data complies with the requirements of the NF EN 15804+A1 standard.
In the following tables 2.53E-06 should be read: 2.53x10 -6 (scientific writing).

The units used are specified in front of each flow, they are:
- the kilogram "kg",
- the cubic metre "m3 ",
- the kilowatt-hour "kWh",
- the megajoule "MJ",
- the square meter "m2 ".

Abbreviations:
- EHPD : Environmental and Health Product Declaration
- LCA: Life Cycle Assessment
- RSL : Reference Service Life
- FU: Functional Unit
- CV : Calorific Value

## 3. Precautions for using the EHPD in product comparisons

EHPD for construction products are not comparable if they do not comply with standard NF EN 15804+A2.

Standard NF EN 15804+A2 defines in § 5.3 Comparability of EHPD for construction products, the conditions under which construction products can be compared, based on the information provided by the EHPD :
“Therefore, a comparison of the environmental performance of construction products using EHPD information must be based on the use of the products and their impact on the building, and must take into account the entire life cycle (all information modules).”

NOTE 1: Outside the framework of a building's environmental assessment, EHPD are not tools for comparing construction products and services.

NOTE 2: To assess the contribution of buildings to sustainable development, a comparison of environmental aspects and impacts must be undertaken in conjunction with the socio-economic aspects and impacts relating to the building.

NOTE 3: Reference values are necessary for interpreting a comparison.

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# 4. Introduction

**The framework used for the presentation of the environmental product declaration is based on the national supplement NF EN 15804+A2/CN and the INIES program.**
A report accompanying the declaration has been drawn up and can be consulted, subject to a confidentiality agreement, at the headquarters of "TEXAA".
The information contained in this declaration is provided under the responsibility of "TEXAA".
The purpose of this study is to register this EHPD in the INIES database.

The declaration was produced within FRD-CODEM by Mathilde PASTOL and Fanny BERNOU. Contact: pastolmathilde@batlab.fr / bernoufanny@batlab.fr.


**Contact :**
Arnaud CALVET
acalvet@texaa.fr
Phone : +33 (0)5 56 75 71 60


# 5. General information

**1. Name and address of the declarant:** TEXAA – 43 ALLEE DE MEGEVIE - 33174 GRADIGNAN

**2. Site(s), manufacturer or group of manufacturers, or their representatives for which the EHPD is representative:** TEXAA – 43 ALLEE DE MEGEVIE - 33174 GRADIGNAN

**3. Type of EHPD:** "cradle to grave"

**4. Type of EHPD:** Individual

**5. Expiration date:** 26/01/2031

**6. Verification program used, name and address of the program operator, logo and website:**

| **The CEN standard EN 15804 serves as a rule for the product category.** |
|---|
| Independent verification of the declaration in accordance with EN ISO 14025:2010<br>☐Internal ☒External |
| Third-party verification:<br><br>**M. LEES-PERASSO Étienne**<br>Phone: +33 (0)6 01 77 97 20<br>Email: elp@tide-env.fr<br>LinkedIn: https://www.linkedin.com/company/tide-env/ |
| INIES program registration number compliant with ISO 14025:<br>**20260148507** |
| Date of first publication :<br>**26/01/2026** |
| Update date (specify whether minor or major update):<br>**--** |
| Date of verification :<br>**26/01/2026** |

| Period of validity: |
|---|
| ☒ 5 years ☐ 2 years from the date of first publication |
| INIES Program<br>Avenue du recteur Poincaré<br>75016 Paris– France - www.inies.fr |

**5. Commercial reference / product identification:** Vibrasto 55

**6. Distribution channels:** BtoB, BtoC

## 6. Description of the functional unit and the product

**1. Description of the functional unit (or declared unit):** « Providing acoustic and visual comfort for 1 m² of wall, ceiling or furniture covering, with an acoustic absorption coefficient of αw = 0.95 when installed in front of concrete and αw = 1 when installed in front of plasterboard, based on a reference service life of 50 years. »

**2. Product description:** Flexible acoustic covering, stretched over walls, ceilings, or furniture, which can cover flat, concave, and convex surfaces. It consists of a highly flame-resistant facing, made of Aeria®* transonore fabric assembled with wadding, stretched over a semi-rigid absorbent material using tension profiles.

(*) Aeria® : name of the transonore fabric, based on an exclusive Texaa® patent.

**3. Description of product use (area of application):** The product complies with ISO 354* regarding acoustic characteristics and is implemented in accordance with the manufacturer's recommendations.

(*) ISO 354:2003: Acoustics - Measurement of sound absorption in reverberation rooms.

**4. Other technical characteristics not included in the functional unit**

| Technical characteristics | Value | Unit |
|---|---|---|
| Mass | 3.15 | kg/m² |
| Thickness | 55 +0/-1 | mm |
| Abrasion resistance (NF EN 12947-2) | > 30 000 | cycles |
| Light fastness (ISO 105-B02 – scale from 1 to 8) | ≥ 5 | — |
| Antistatic properties (ASTM D257) | $3.10^7$ | Ω / m² |
| Reaction to fire classification (NF EN 13501-3) | B-s1, d0 | — |
| Micro-organism development | The nature of the components prevents the development of mites and micro-organisms | |
| VOC and formaldehyde emissions (ISO 16000): French health labeling, German AgBB protocol and Indoor Air Comfort label | A+ / Compliant / Gold | |

## 5. Description of the main components and/or materials of the product

| Parameters | | Material | Value [kg/m²] |
|---|---|---|---|
| Components | Sound absorber | Synthetic | 2.00E+00 |
| | Surface covering (Aeria®) | Synthetic | 6.81E-01 |
| | Tension profiles | Synthetic | 3.30E-01 |
| | Wadding | Synthetic | 1.10E-01 |
| | Others | | 2.79E-02 |
| **Total mass of the finished product** | | | **3.15E+00** |
| Packaging | Carboard | Carboard | 1.59E-01 |
| | Cardboard core | Carboard | 4.39E-02 |
| | Kraft paper | Paper | 4.59E-03 |
| | Staples | Steel | 1.15E-03 |
| | Profile tube caps | Polyethylene | 3.76E-03 |
| | Profile tubes | Cardboard | 3.32E-01 |
| | Plastic film for pallets | Plastic | 7.04E-03 |
| | Pallets | Wood | 1.24E-01 |
| **Total mass of packaging** | | | **6.75E-01** |
| Installation waste rate | A loss of 7% is considered at installation | | |
| Maintenance waste rate | Not applicable | | |
| Justification of the information provided | The information is provided by TEXAA | | |

## 6. Candidate list substances according to the REACH regulation (if above 0.1% by mass)

The product does not contain substances from the REACH candidate list above 0.1% by mass.

## 7. Description of the reference service life (in accordance with §7.2.2 of NF EN 15804+A2)

The reference service life complies with the recommendation in Annex H of the national supplement NF EN 15804+A2/CN.

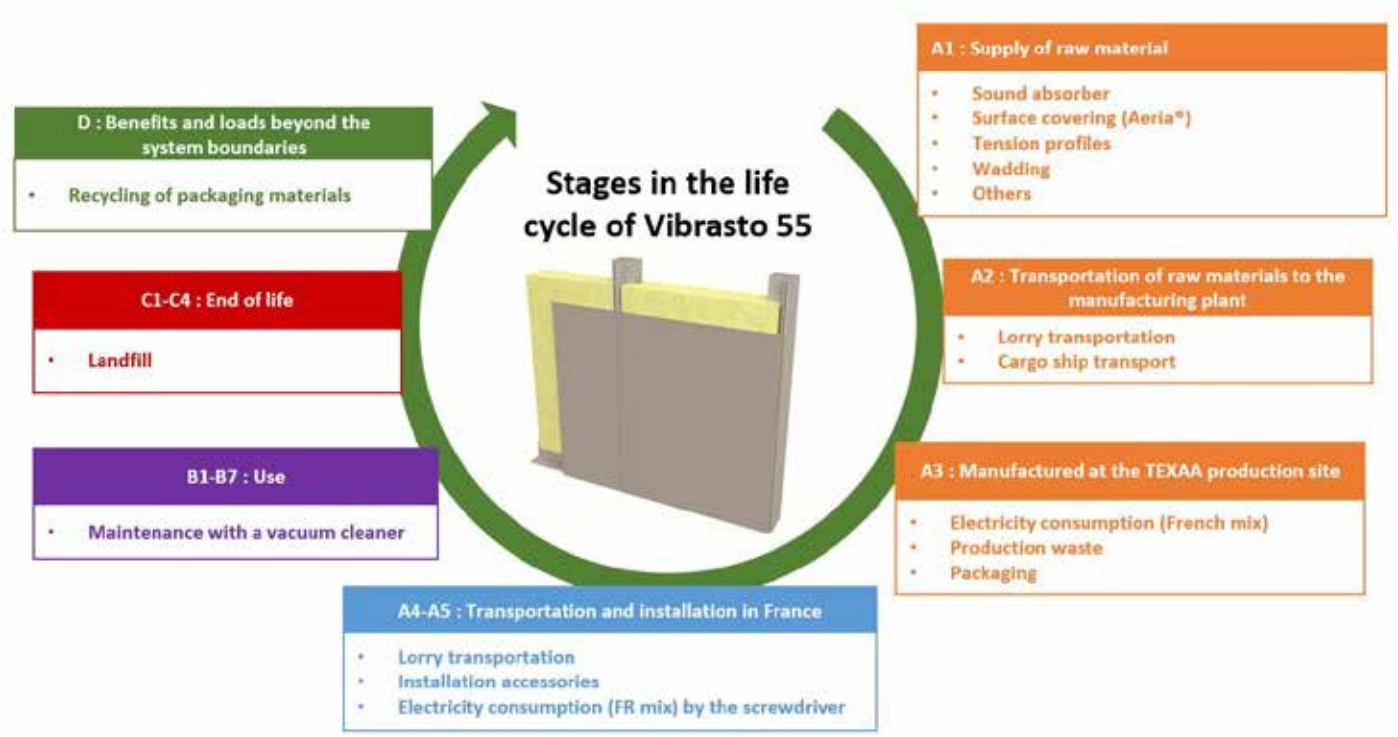
| Parameters | Value / Description |
|---|---|
| Reference service life | 50 years |
| Theoretical application parameters | Work quality is assumed to comply with manufacturer recommendations |
| Presumed quality of work | |
| Outdoor environment | Not applicable |
| Indoor environment | Relative humidity: 30%–75%; Temperature: 10°–30°C |
| Conditions of use | Product use is assumed to comply with manufacturer recommendations |
| Maintenance | The manufacturer recommends vacuum cleaning once per year to ensure proper maintenance |

## 8. Biogenic carbon content

| Biogenic carbon content | Value | Unit |
|---|---|---|
| Biogenic carbon content of the product | 6,7E-04 | kg C |
| Biogenic carbon content of associated packaging | 2,30E-01 | kg C |
| NOTE: 1 kg of biogenic carbon is equivalent to 44/12 kg of CO2. | | |

# 7. Life cycle stages

The life cycle of the product considered in this EHPD is described through the following modules, in accordance with NF EN 15804+A2 and its national supplement.




| DESCRIPTION OF SYSTEM BOUNDARIES (X=INCLUDED IN LCA; UD=UNDECLARED MODULE) | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PRODUCT STAGE | CONSTRUCTION PROCESS STAGE | | USE STAGE | | | | | | | END-OF-LIFE STAGE | | | | BENEFITS AND LOADS BEYOND SYSTEM BOUNDARIES |
| Production | Transport to the site | Construction installation | Use | Maintenance | Repair | Replacement | Refurbishment | Operational Energy Use | Operational Water Use | Demolition/ Deconstruction | Transport | Waste processing | Disposal | Reuse, recovery, recyling, exported energy potential |
| A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
| X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |

## 7.1 Production stage : A1-A3

The production stage includes sourcing the raw materials needed to manufacture the Vibrasto 55. This stage also takes into account the distance traveled between the raw material supplier and the product manufacturing site.

The TEXAA factory takes into account the following manufacturing stages:

- Knitting of Aeria® fabric
- Gluing and cutting of the coating
- Sheathing the rod (gluing a strip of fabric to cover the tension profile)
- Packaging

The electricity emission factor used is 7.93E-02 kg CO2 equivalent per kWh.

The components of the “Vibrasto 55” product are packaged as follows for transport to the construction site:

1. The Vibrasto coating is rolled onto a mandrel, wrapped in kraft paper, placed in a cardboard box, and sealed with staples.
2. The profiles are packaged in cardboard tubes with plastic caps.
3. The acoustic absorber is placed on a wooden pallet and wrapped in plastic film.

Note: the packaging of the main raw materials arriving at the manufacturing site are considered, as well as their end-of-life treatment. However, the packaging of the packaging materials is not considered (cut-off rule).

## 7.2 Construction stage: A4-A5

**Transport to the construction site:**

| Parameter | Value/Description |
|---|---|
| Means of transport | Lorry, 16–32 tonnes |
| Emissions standard | EURO 6 |
| Distance | 544 km |
| Capacity utilization (mass) | 36,25 % |
| Bulk density of transported products | Not applicable |
| Volume capacity utilization coefficient (coefficient: =1 or <1 or ≥1 for compressed or nested products) | 1 |

**Installation in the bulding :**

| Parameter | Value/Description |
|---|---|
| Auxiliary materials | Screws and sealant for installing tension profiles |
| Water consumption | N/A |
| Energy consumption | - |
| Quantitative description of the type of energy (regional energy mix) and consumption during the installation process | 19g of sealant per m² of product.<br>6 screws per m² of Vibrasto 55, which corresponds to 60 seconds of screwing and 0.005 kWh of French electricity consumption, with the screwdriver having a power of 300W. |
| Material waste on the construction site before treatment of waste generated by the installation of the product (specified by type) | Empty sealant cartridge: 6.8 g/UF<br>Packaging waste = 726 g/UF<br>7% product loss = 237 g/UF |
| Output materials (specified by type) produced by the treatment of waste on the construction site, e.g. collection for recycling, energy recovery, disposal (specified by route) | Empty sealant cartridge waste: 6.8 g<br>Hazardous waste treatment.<br><br>Paper and cardboard waste: 580.3 g<br>Cardboard and paper waste is treated at the end of its life in accordance with the INIES guide, ELYS Conseil, 2024.<br>This equates to 88% recycling, 7% landfill and 5% incineration.<br><br>Steel waste (staples): 1.2 g<br>Small steel items such as staples are considered to be landfilled.<br><br>Plastic waste: 11.6 g<br>Plastic waste is treated at the end of its life in accordance with the INIES guide, ELYS Conseil, 2024.<br>26% recycling, 48% incineration, 26% landfill<br><br>Wooden pallet waste: 132.8 g<br>Wooden pallet waste is treated at the end of its life in accordance with the INIES guide, ELYS Conseil, 2024.<br>This equates to 43% recycling, 49% incineration, and 8% landfill.<br><br>7% product waste during implementation: 237 g<br>The materials used to make the product are 100% sent to landfill |
| Direct emissions to ambient air, soil, and water | Not applicable |

## 7.1Use stage (excluding potential savings) : B1-B7

**B1 Use**

| Parameter | Value/Description | Unit |
|---|---|---|
| Description of the scenario | More information on volatile pollutant emissions from the product covered by the EHPD is provided in paragraph 10. | - |

**B2 Maintenance**

| Parameter | Value/Description | Unit |
|---|---|---|
| Description of the scenario | The product is cleaned once a year using a vacuum cleaner, which is modeled based on electricity consumption and the use of a dust bag. The dust bag is then considered to be 50% landfilled and 50% incinerated at the end of its life. The machine will be reused many times and is therefore not taken into account in this study. | - |
| Maintenance frequency | Every year (one cycle) | year |
| Auxiliary inputs for maintenance | Vacuum cleaner bag: 0.035 kg/RSL | kg/RSL |
| Energy input during maintenance | 15 seconds of operation of a 2000W vacuum cleaner to clean 1m² once a year for 50 years. That is 2000*(15/3600)*50 = 417 Wh | Wh/RSL |
| Waste produced during maintenance (specify materials) | Vacuum cleaner bag filled with dust: 0.085 kg | |

For the remaining stages of the project (B3-B7), there are no other elements within the scope of the study.

## 7.1 End of life : C1-C4

| Parameter | Value/Description | Unit |
|---|---|---|
| Description of the scenario | The product Vibrasto 55 is considered to be removed by hand. The end-of-life scenario is that of non-hazardous waste disposed of in a landfill. The distance considered is 50 km according to standard NF EN 15804+A2/CN. | - |
| Quantity intended for recovery | - | kg |
| Quantity intended for energy recovery | - | |
| Quantity disposed | 3.18 | kg/m² |

## 7.1 Potential for recycling/reuse/recovery : D

This module covers the potential for recovering packaging waste from module A5.

| Materials outside the system boundaries | Recycling processes outside the system boundaries | Materials/ Energy saved | Amount associated in the product | Unit |
|---|---|---|---|---|
| Single-use wooden pallet packaging | Single-use wooden pallet packaging | Virgin wood chips (kg) | 5,07E-02 | kg |
| | Incineration with energy recovery | Grid electricity, FR, high voltage, geographical mix (MJ) | 8,60E-02 | MJ |
| | Incineration with energy recovery | Heat from natural gas (MJ) | 4,88E-01 | MJ |
| Paper and cardboard packaging | Recycling | Kraftliner cardboard (kg) | 8,12E+01 | kg |
| | Incineration with energy recovery | Grid electricity, FR, high voltage, geographical mix (MJ) | 2,67E+01 | MJ |
| | Incineration with energy recovery | Heat from natural gas (MJ) | 2,04E+02 | MJ |
| LDPE polyethylene packaging | Recycling | Virgin LDPE pellets (kg) | 3,02E-03 | kg |
| | Incineration with energy recovery | Grid electricity, FR, high voltage, geographical mix (MJ) | 1,61E-02 | MJ |
| | Incineration with energy recovery | Heat from natural gas (MJ) | 1,23E-01 | MJ |

# 8. Information for calculating the Life Cycle Assessment

| | |
|---|---|
| **Product Category Rules (PCR) used** | The standards NF EN 15804+A2 (October 2019) and NF EN 15804+A2/CN (October 2022) were applied. |
| **System boundaries** | The system boundaries comply with the limits set by the NF EN 15804+A2 standard and its national annex NF EN 15804+A2/CN.<br>Cradle to gate with options: stages A1–A3, B2, C1–C4, and D. |
| **Cut-off rules** | All inputs and outputs for which Life Cycle Inventory (LCI) data are available in the Ecoinvent database were included in the product LCI, with the exception of certain raw material packaging, in accordance with the cut-off rule (neglected mass < 1% of total mass). |
| **Allocation** | No allocation was applied. |
| **Geographical and temporal representativeness of primary and secondary data** | **Geographical**<br>Data were collected at the plant where the production phases take place:<br>TEXAA – 43 Allée de Megévie – 33174 Gradignan, France.<br>**Temporal**<br>The collected data are representative of the current life cycle of the product. The main data used are representative of activity in 2024–2025. TEXAA provided the data in May 2025.<br><br>Generic data originate from the Ecoinvent 3.11 database ("allocation cut-off by classification"), latest update available at the time of the study. |
| **Software used** | SimaPro life cycle assessment software (version 10.2). |

## 9. Life Cycle Assessment results

The table below presents the classification of liability exemptions for the declaration of reference and additional environmental impact indicators:

| Classification ILCD | Indicator | Disclaimer |
|---|---|---|
| ILCD Type 1 | Global warming potential (GWP) | None |
| | Stratospheric Ozone Depletion Potential (ODP) | None |
| | Potential incidence of diseases due to fine particulate matter emissions | None |
| ILCD Type 2 | Acidification Potential, accumulated exceedance (AP) | None |
| | Eutrophication potential, fraction of nutrients reaching freshwater end compartment (EP-freshwater) | None |
| | Eutrophication potential, fraction of nutrients reaching marine end compartment (EP-marine) | None |
| | Terrestrial acidification potential (EP-terrestrial) | None |
| | Photochemical ozone formation potential (POCP) | None |
| | Potential human exposure efficiency to U235 isotope (PIR) | 1 |
| ILCD Type 3 | Abiotic depletion potential – non-fossil resources (ADP-minerals & metals) | 2 |
| | Abiotic depletion potential – fossil resources (ADP-fossil) | 2 |
| | Water deprivation potential (users), deprivation-weighted water consumption (WDP) | 2 |
| | Comparative toxic unit for ecosystems (ETP-fw) | 2 |
| | Comparative toxic unit for humans (HTP-c) | 2 |
| | Comparative toxic unit for humans (HTP-nc) | 2 |
| | Soil quality potential index (SQP) | 2 |

*Disclaimer [1]* – This impact category mainly concerns the potential impact on human health of low-dose ionizing radiation from the nuclear fuel cycle. It does not consider the consequences of potential nuclear accidents, occupational exposure, or radioactive waste disposal in underground facilities. Potential ionizing radiation originating from soil, radon, and certain construction materials is also not measured by this indicator.

*Disclaimer [2]* - The results of this environmental impact indicator shall be used with caution, as uncertainties associated with these results are high or experience related to this indicator is limited.

| | Production stage | | | Construction stage | | Use stage | | | | | | | End-of-life stage | | | | D Benefits and loads beyond the system boundaries A2 Transport |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A1 Raw material supply | A2 Transport | A3 Manufacturing | A4 Transport | A5 Installation | A1 Raw material supply | A2 Transport | A3 Manufacturing | A4 Transport | A5 Installation | A1 Raw material supply | A2 Transport | A3 Manufacturing | A4 Transport | A5 Installation | A1 Raw material supply | |
| **ENVIRONMENTAL IMPACT** | | | | | | | | | | | | | | | | | |
| Climate change – total kg $CO_2$ eq/FU | 5,12E+00 | 3,07E-01 | -3,83E-01 | 3,56E-01 | 1,50E+00 | 0 | 2,01E-01 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 2,61E-03 | 0,00E+00 | 5,08E-01 | -7,62E-02 |
| Climate change – fossil fuels kg $CO_2$ eq/FU | 5,70E+00 | 3,07E-01 | 4,30E-01 | 3,56E-01 | 2,77E-01 | 0 | 2,01E-01 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 2,61E-03 | 0,00E+00 | 5,07E-01 | -6,29E-02 |
| Climate change – biogenic kg CO2 eq/FU | -5,83E-01 | 1,32E-05 | -8,18E-01 | 1,53E-05 | 1,22E+00 | 0 | 1,86E-04 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 1,12E-07 | 0,00E+00 | 9,98E-04 | -1,40E-02 |
| Climate change – land use and land use change kg CO2 eq/FU | 5,70E-03 | 4,74E-06 | 5,28E-03 | 5,48E-06 | 5,03E-04 | 0 | 1,19E-04 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 4,03E-08 | 0,00E+00 | 1,57E-05 | 7,28E-04 |
| Ozone deplation kg CFC 11 eq/FU | 1,07E-06 | 7,33E-11 | -9,25E-09 | 8,49E-11 | 5,04E-09 | 0 | 2,63E-10 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 6,24E-13 | 0,00E+00 | 1,49E-11 | -9,66E-09 |
| Acidification mol H+ eq/FU | 2,67E-02 | 3,72E-04 | 2,03E-03 | 8,96E-04 | 9,18E-04 | 0 | 5,52E-04 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 3,16E-06 | 0,00E+00 | 6,42E-04 | -2,47E-04 |
| Eutrophication, freshwater kg P eq/FU | 1,23E-03 | 1,54E-06 | 2,86E-04 | 1,79E-06 | 6,94E-05 | 0 | 3,78E-05 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 1,31E-08 | 0,00E+00 | 2,04E-04 | -1,52E-06 |
| Eutrophication, marine kg N eq/FU | 7,93E-03 | 8,39E-05 | 1,20E-03 | 3,42E-04 | 1,01E-03 | 0 | 3,42E-04 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 7,14E-07 | 0,00E+00 | 8,96E-03 | 5,70E-05 |
| Eutrophication, terrestrial Mol N eq/FU | 8,48E-02 | 9,11E-04 | 7,72E-03 | 3,73E-03 | 2,44E-03 | 0 | 1,37E-03 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 7,76E-06 | 0,00E+00 | 2,07E-03 | -6,22E-04 |
| Photochemical ozone formation kg NMCOV eq/FU | 2,55E-02 | 7,29E-04 | 1,91E-03 | 1,48E-03 | 9,19E-04 | 0 | 6,68E-04 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 6,21E-06 | 0,00E+00 | 7,92E-04 | -2,37E-04 |
| Abiotic resource depletion – elements kg Sb eq/FU | 9,00E-05 | 7,84E-09 | 2,64E-07 | 9,08E-09 | 2,05E-07 | 0 | 2,40E-08 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 6,67E-11 | 0,00E+00 | 8,90E-09 | 4,73E-09 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Abiotic resource depletion – fossil fuels MJ /FU | 4,98E+01 | 2,67E-02 | 1,37E+00 | 3,09E-02 | 1,30E+00 | 0 | 4,93E+00 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 2,27E-04 | 0,00E+00 | 3,29E-01 | -1,26E+00 |
| Water deprivation m3 deprivation /FU | 4,23E+00 | 1,32E-03 | 2,60E-01 | 1,53E-03 | 5,07E-02 | 0 | 3,37E-02 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 1,12E-05 | 0,00E+00 | -1,59E-02 | 5,51E-03 |
| **ENVIRONMENTAL ADDITIONNAL IMPACT** | | | | | | | | | | | | | | | | | |
| Fine particulate matter emissions disease increased/FU | 2,53E-07 | 1,80E-08 | 1,57E-08 | 2,31E-08 | 1,08E-08 | 0 | 6,54E-09 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 1,53E-10 | 0,00E+00 | 7,04E-09 | -6,03E-09 |
| Ionizing radiation (human health) kBq de U-235 eq/FU | 1,70E+00 | 1,00E-03 | 1,79E-01 | 1,16E-03 | 1,70E-02 | 0 | 2,20E-01 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 8,53E-06 | 0,00E+00 | 1,49E-02 | -5,16E-03 |
| Freshwater ecotoxicity CTUe/FU | 5,04E+01 | 1,65E-01 | 5,57E+00 | 1,90E-01 | 9,76E+00 | 0 | 1,94E+00 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 1,41E-03 | 0,00E+00 | 3,03E+01 | 1,69E-01 |
| Human toxicity – cancer effects CTUh/FU | 2,57E-09 | 9,73E-12 | 2,65E-10 | 1,33E-11 | 3,17E-10 | 0 | 2,02E-11 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 8,28E-14 | 0,00E+00 | 1,33E-11 | -1,80E-11 |
| Human toxicity – non-cancer effects CTUh/FU | 5,80E-08 | 4,88E-10 | 6,32E-09 | 7,63E-10 | 1,96E-08 | 0 | 3,35E-09 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 4,15E-12 | 0,00E+00 | 1,56E-07 | 4,55E-12 |
| Land use impacts & Soil quality point /FU | 8,37E+01 | 5,06E-03 | 3,14E+01 | 5,86E-03 | 4,89E-01 | 0 | 2,24E-01 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 4,31E-05 | 0,00E+00 | 1,74E+00 | -1,19E+01 |

| | Production stage | | | Construction stage | | Use stage | | | | | | | End-of-life stage | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A1 Raw material supply | A2 Transport | A3 Manufacturing | A4 Transport | A5 Installation | B1 Use | B2 Maintenance | B3 Repair | B4 Replacement | B5 Refurbishment | B6 Operational energy use | B7 Operational water use | C1 Deconstruction / demolition | C2 Transport | C3 Waste processing | C4 Disposal | D Benefits and loads beyond the system boundaries |
| **RESSOURCE USE** | | | | | | | | | | | | | | | | | |
| Use of renewable primary energy resources, excluding renewable primary energy resources used as raw materials MJ, net CV / FU | 2,57E+01 | 9,93E-03 | 8,06E+00 | 1,15E-02 | 9,84E+00 | 0 | 5,41E-01 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 8,45E-05 | 0,00E+00 | 3,16E-02 | -8,91E-01 |
| Use of renewable primary energy resources used as raw materials MJ, net CV / FU | 8,93E+00 | 0,00E+00 | -2,21E+00 | 0,00E+00 | -1,72E+01 | 0 | 0,00E+00 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | -3,44E-01 |
| Total use of renewable primary energy resources MJ, net CV / FU | 3,46E+01 | 9,93E-03 | 5,85E+00 | 1,15E-02 | -7,33E+00 | 0 | 5,41E-01 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 8,45E-05 | 0,00E+00 | 3,16E-02 | -1,24E+00 |
| Use of non-renewable primary energy resources, excluding non-renewable primary energy resources used as raw materials MJ, net CV / FU | 1,53E+01 | 2,64E-02 | 3,16E+00 | 3,06E-02 | 1,37E+01 | 0 | 4,93E+00 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 2,25E-04 | 0,00E+00 | 3,29E-01 | -1,17E+00 |
| Use of non-renewable primary energy resources used as raw materials MJ, net CV / FU | 5,49E+00 | 0,00E+00 | -1,34E+00 | 0,00E+00 | -1,26E+01 | 0 | 0,00E+00 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Total use of non-renewable primary energy resources MJ, net CV / FU | 4,94E+01 | 2,64E-02 | 1,83E+00 | 3,06E-02 | 1,18E+00 | 0 | 4,93E+00 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 2,25E-04 | 0,00E+00 | 3,29E-01 | -1,17E+00 |
| Use of secondary materials kg/FU | 8,01E-04 | 0,00E+00 | 1,13E-01 | 0,00E+00 | 0,00E+00 | 0 | 0,00E+00 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 4,62E-01 |
| Use of renewable secondary fuels MJ, net CV / FU | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0 | 0,00E+00 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Use of non-renewable secondary fuels MJ, net CV / FU | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0 | 0,00E+00 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Net use of fresh water m3 /FU | 1,55E-01 | 7,67E-05 | 1,05E-02 | 8,88E-05 | 9,21E-04 | 0 | 1,74E-03 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 6,52E-07 | 0,00E+00 | -6,19E-03 | 0,00E+00 |

| | | Production stage | | | Construction stage | | Use stage | | | | | | | End-of-life stage | | | | D Benefits and loads beyond the system boundaries |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A1 Raw material supply | A2 Transport | A3 Manufacturing | A4 Transport | A5 Installation | B1 Use | B2 Maintenance | B3 Repair | B4 Replacement | B5 Refurbishment | B6 Operational energy use | B7 Operational water use | C1 Deconstruction / demolition | C2 Transport | C3 Waste processing | C4 Disposal | |
| **WASTE CATEGORIES** | | | | | | | | | | | | | | | | | | |
| Déchets dangereux éliminés kg/UF | | 7,65E-02 | 3,43E-05 | 4,65E-03 | 3,97E-05 | 2,87E-03 | 0 | 2,41E-02 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 2,92E-07 | 0,00E+00 | 5,83E-04 | -8,22E-04 |
| Déchets non dangereux éliminés kg/UF | | 2,31E+00 | 9,92E-04 | 1,71E-01 | 1,15E-03 | 4,06E-01 | 0 | 1,29E-01 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 8,44E-06 | 0,00E+00 | 3,19E+00 | 1,28E-02 |
| Déchets radioactifs éliminés kg/UF | | 5,24E-04 | 2,40E-07 | 4,36E-05 | 2,78E-07 | 6,23E-06 | 0 | 6,29E-05 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 2,04E-09 | 0,00E+00 | 4,25E-06 | -5,39E-06 |
| **OUTFLOW** | | | | | | | | | | | | | | | | | | |
| Composants destinés à la réutilisation | | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0 | 0,00E+00 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Matériaux destinés au recyclage | | 3,55E-02 | 0,00E+00 | 9,55E-03 | 0,00E+00 | 5,71E-01 | 0 | 0,00E+00 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | -5,72E-02 |
| Matériaux destinés à la récupération d'énergie | | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0 | 0,00E+00 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Energie fournie à l'extérieur (par vecteur énergétique) | Electricité | 3,95E-02 | 0,00E+00 | 1,15E-02 | 0,00E+00 | 7,08E-02 | 0 | 0,00E+00 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | -2,79E-02 |
| | Vapeur | 3,82E-01 | 0,00E+00 | -7,00E-02 | 0,00E+00 | 1,02E+00 | 0 | 0,00E+00 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | -6,93E-01 |
| | Gaz de process | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0 | 0,00E+00 | 0 | 0 | 0 | 0 | 0 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

| Impact category / flow | Unit | Total Production | Total Implement ation | Total Life Cycle | Total End of Life | Total Cycle de vie | D Benefits and costs beyond the boundaries of the system |
|---|---|---|---|---|---|---|---|
| **ENVIRONNEMENTAL IMPACTS** | | | | | | | |
| Climate change – total | kg $CO_2$ eq/FU | 5,12E+00 | 1,86E+00 | 2,01E-01 | 5,10E-01 | 7,69E+00 | -7,62E-02 |
| Climate change – fossil fuels | kg $CO_2$ eq/FU | 5,70E+00 | 6,33E-01 | 2,01E-01 | 5,10E-01 | 7,05E+00 | -6,29E-02 |
| Climate change – biogenic | kg $CO_2$ eq/FU | -5,83E-01 | 1,22E+00 | 1,86E-04 | 9,98E-04 | 6,43E-01 | -1,40E-02 |
| Climate change – land use and land use change | kg $CO_2$ eq/FU | 5,70E-03 | 5,08E-04 | 1,19E-04 | 1,58E-05 | 6,34E-03 | 7,28E-04 |
| Ozone depletion | kg CFC 11 eq/FU | 1,07E-06 | 5,13E-09 | 2,63E-10 | 1,55E-11 | 1,07E-06 | -9,66E-09 |
| Acidification | Mol H+ eq/FU | 2,67E-02 | 1,81E-03 | 5,52E-04 | 6,45E-04 | 2,97E-02 | -2,47E-04 |
| Eutrophication, freshwater | Mol P eq/FU | 1,23E-03 | 7,12E-05 | 3,78E-05 | 2,04E-04 | 1,55E-03 | -1,52E-06 |
| Eutrophication, marine | kg N eq/FU | 7,93E-03 | 1,35E-03 | 3,42E-04 | 8,97E-03 | 1,86E-02 | 5,70E-05 |
| Eutrophication, terrestrial | Mol N eq/FU | 8,48E-02 | 6,17E-03 | 1,37E-03 | 2,08E-03 | 9,44E-02 | -6,22E-04 |
| Photochemical ozone formation | kg NMVOC eq/FU | 2,55E-02 | 2,40E-03 | 6,68E-04 | 7,98E-04 | 2,94E-02 | -2,37E-04 |
| Abiotic resource depletion – elements | kg Sb eq/FU | 9,00E-05 | 2,14E-07 | 2,40E-08 | 8,97E-09 | 9,02E-05 | 4,73E-09 |
| Abiotic resource depletion – fossil fuels | MJ CV /FU | 4,98E+01 | 1,33E+00 | 4,93E+00 | 3,29E-01 | 5,64E+01 | -1,26E+00 |
| Water deprivation | m3 deprivation of water /FU | 4,23E+00 | 5,23E-02 | 3,37E-02 | -1,59E-02 | 4,30E+00 | 5,51E-03 |
| **OPTIONNAL INDICATOR** | | | | | | | |
| Fine particulate matter emissions | Disease inc. /FU | 2,53E-07 | 3,39E-08 | 6,54E-09 | 7,19E-09 | 3,01E-07 | -6,03E-09 |
| Ionizing radiation (human health) | kBq de U-235 eq /FU | 1,70E+00 | 1,82E-02 | 2,20E-01 | 1,49E-02 | 1,96E+00 | -5,16E-03 |
| Freshwater ecotoxicity | CTUe/FU | 5,04E+01 | 9,95E+00 | 1,94E+00 | 3,03E+01 | 9,26E+01 | 1,69E-01 |
| Human toxicity – cancer effects | CTUh/FU | 2,57E-09 | 3,31E-10 | 2,02E-11 | 1,33E-11 | 2,93E-09 | -1,80E-11 |
| Human toxicity – non-cancer effects | CTUh/FU | 5,80E-08 | 2,04E-08 | 3,35E-09 | 1,56E-07 | 2,38E-07 | 4,55E-12 |
| Land use impacts / Soil quality | Dimensionless (Point) /FU | 8,37E+01 | 4,95E-01 | 2,24E-01 | 1,74E+00 | 8,61E+01 | -1,19E+01 |
| **RESSOURCE CONSUMPTION** | | | | | | | |
| Use of renewable primary energy resources, excluding renewable primary energy resources used as raw materials | MJ CV /FU | 2,57E+01 | 9,86E+00 | 5,41E-01 | 3,17E-02 | 3,61E+01 | -8,91E-01 |
| Use of renewable primary energy resources used as raw materials | MJ CV /FU | 8,93E+00 | -1,72E+01 | 0,00E+00 | 0,00E+00 | -8,25E+00 | -3,44E-01 |
| Total use of renewable primary energy resources | MJ CV /FU | 3,46E+01 | -7,32E+00 | 5,41E-01 | 3,17E-02 | 2,78E+01 | -1,24E+00 |
| Use of non-renewable primary energy resources, excluding non-renewable primary energy resources used as raw materials | MJ CV /FU | 1,53E+01 | 1,38E+01 | 4,93E+00 | 3,29E-01 | 3,43E+01 | -1,17E+00 |
| Use of non-renewable primary energy resources used as raw materials | MJ CV /FU | 5,49E+00 | -1,26E+01 | 0,00E+00 | 0,00E+00 | -7,06E+00 | 0,00E+00 |
| Total use of non-renewable primary energy resources | MJ CV /FU | 4,94E+01 | 1,21E+00 | 4,93E+00 | 3,29E-01 | 5,59E+01 | -1,17E+00 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Use of secondary materials | kg/FU | 8,01E-04 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 8,01E-04 | 4,62E-01 |
| Use of renewable secondary fuels | MJ CV /FU | 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 CV /FU | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Net use of fresh water | $m^3$/FU | 1,55E-01 | 1,01E-03 | 1,74E-03 | -6,19E-03 | 1,51E-01 | -3,44E-05 |
| **WASTE CATEGORIES** | | | | | | | |
| Hazardous waste disposed | kg/FU | 7,65E-02 | 2,91E-03 | 2,41E-02 | 5,83E-04 | 1,04E-01 | -8,22E-04 |
| Non-hazardous waste disposed | kg/FU | 2,31E+00 | 4,07E-01 | 1,29E-01 | 3,19E+00 | 6,04E+00 | 1,28E-02 |
| Radioactive waste disposed | kg/FU | 5,24E-04 | 6,51E-06 | 6,29E-05 | 4,26E-06 | 5,97E-04 | -5,39E-06 |
| **OUTFLOW** | | | | | | | |
| Components for reuse | kg/FU | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Materials for recycling | kg/FU | 3,55E-02 | 5,71E-01 | 0,00E+00 | 0,00E+00 | 6,07E-01 | -5,72E-02 |
| Materials for energy recovery | kg/FU | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy – electricity | MJ/FU | 3,95E-02 | 7,08E-02 | 0,00E+00 | 0,00E+00 | 1,10E-01 | -2,79E-02 |
| Exported energy – steam | MJ/FU | 3,82E-01 | 1,02E+00 | 0,00E+00 | 0,00E+00 | 1,40E+00 | -6,93E-01 |
| Exported energy – process gas | MJ/FU | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

Table of life cycle assessment results displayed in accordance with Decree No. 2013-1264 of December 23, 2013[1]

[1] Decree No. 2013-1264 of December 23, 2013 on the environmental declaration of certain construction products intended for use in building works

## 10. Additional information on the release of hazardous substances into indoor air, soil, and water during the period of use

| | Potentially emitted substances/gases/ radiation | Test results | Justification and/or test report |
|---|---|---|---|
| **Indoor air emissions[1] [2]** | VOC and formaldehyde emissions |  | *Vibrasto 55 acoustic cladding has been tested in accordance with ISO 16000 to determine its VOC and formaldehyde content. It has been awarded an A+ rating under French health labeling standards, complies with the German AgBB protocol, and has been awarded the Indoor Air Comfort label. Report N° C-191121-11641-003_J3_J28 et 392-2023-00594601_A_FR_TEXAA_IAC GOLD.* |
| | Behavior in response to fungal and bacterial growth | *No tests have been performed.* | - |
| | Natural radioactive emissions from construction products | *No tests have been performed.* | - |
| | Fiber and particle emissions | *No tests have been performed.* | - |
| **Emissions into soil and water [1] [2]** | Emissions in water | *Not applicable.*<br>*The material does not come into contact with water intended for human consumption, runoff water, seepage water, groundwater, or surface water.* | - |
| | Emissions into the soil | *The material is not in direct contact with the ground.* | - |

*1) Emissions to indoor air, soil, and water according to Horizontal Standards for the measurement of emissions of regulated hazardous substances from construction products, using harmonized test methods in accordance with the provisions of the respective Technical Committees of the European Product Standards, where available.*
*For more information, refer to the EeB Guide: http://www.eebguide.eu/?p=1991*
*2) In France, the INIES Base technical committee (CTIB) provides recommendations on the declaration of health and comfort characteristics - Guide to drafting health and comfort summaries (CTIB N94, June 2018).*

# 11. Contribution of the product to indoor quality of life (hygrothermal, acoustic, visual, and olfactory comfort)

<table>
<tr><th>Contribution of the product to indoor quality of life</th><th>Description</th></tr>
<tr><td>Hygrothermal comfort</td><td>The product does not claim any hygrothermal comfort.</td></tr>
<tr><td>Acoustic comfort</td><td>The product is an acoustic absorber with characteristics measured according to ISO 354 and NF EN 20354 :
<table>
<tr><th></th><th>$\alpha_w$</th><th>Classe</th><th>NRC</th><th>Fréquences (Hz)</th><th>125</th><th>250</th><th>500</th><th>1000</th><th>2000</th><th>4000</th></tr>
<tr><td>Vibrasto + panneau RI 25 mm</td><td>0,95</td><td>A</td><td>0,90</td><td>$\alpha_{Sabine}$</td><td>0,27</td><td>0,86</td><td>0,92</td><td>0,94</td><td>0,88</td><td>0,83</td></tr>
</table></td></tr>
<tr><td>Visual comfort</td><td>As a decorative product, it offers architects and designers a wide range of colors to enhance visual comfort for users, adaptable to the intended use. Light reflection: 81% for the color MR003 Pearly Gray. Resistance to light fading: lightfastness is ≥ 5 according to standard NF EN ISO 105-B02.</td></tr>
<tr><td>Olfactory comfort</td><td>The product does not claim to be pleasant-smelling.</td></tr>
<tr><td>Health quality of indoor spaces</td><td>The antistatic surface of Aeria® fabric limits the accumulation of dust and dirt.<br>Care instructions are available for users.</td></tr>
</table>

# 12. References

NF EN ISO 14025:2010 - Environmental claims and declarations - Type III environmental declarations - Principles and procedures

NF EN 15804+A2:2019 - Contribution of construction works to sustainable development — Environmental declarations on products — Rules governing categories of construction products

NF EN 15804+A2/CN - Contribution of construction works to sustainable development — Environmental product declarations — Rules governing construction product categories — National supplement to NF EN 15804+A2

NF EN ISO 14040:2006 - Environmental management - Life cycle assessment - Principles and framework

NF EN ISO 14044:2006 - Environmental management - Life cycle assessment - Requirements and guidelines

European Commission, PEFCR Guidance document, - Guidance for the development of Product Environmental Footprint Category Rules (PEFCRs), version 6.3, December 2017.

NF EN 13431:2004 – Packaging – Requirements for packaging that can be recovered for energy, including the specification of a minimum lower calorific value

INIES, ELYS Conseil, 2024. Guide to good practice and establishment of default values for the end of life of packaging in EHPD. Version 1 – May 2024.