# ENVIRONMENTAL PRODUCT DECLARATION

## In compliance with ISO 14025 and EN 15804+A2

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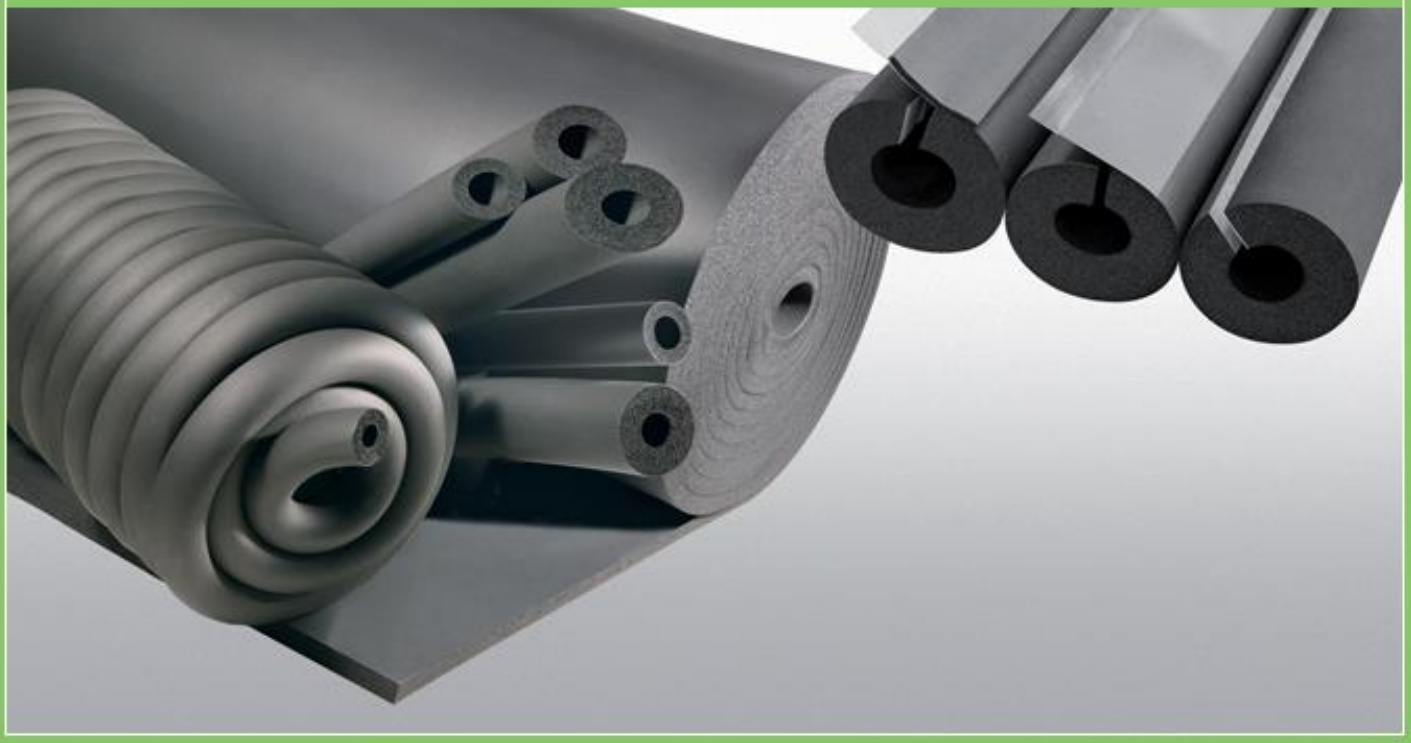
|---|---|
| ***Product:*** | **IT-FLEX C1** |
| ***Site plant:*** | E&M001 Evocell&Mobius S.r.l.<br>Via D. Albertario 63/65 - Zona Industriale Bellocchi<br>61032 Fano (PU) – ITALY<br>E&M002 Italy |
| ***Program Operator:*** | EPD Italy www.epditaly.it |
| ***Publisher:*** | EPD Italy www.epditaly.it |
| ***Declaration number:*** | ITFLEX001 |
| ***Registration number EPDItaly:*** | EPDITALY0094 |
| ***Issue date:*** | 24-02-2020 |
| ***Update date:*** | 15-09-2023 |
| ***Valid until:*** | 15-09-2028 |



## GENERAL INFORMATION

| | |
|---|---|
| **EPD owner** | **Evocell&Mobius Srl**<br>Registered office: Via Manzoni 43, 20121, Milano VAT No. 02651770154 |
| **Plants** | E&M001: Via D. Albertario 63/65 Zona Industriale Bellocchi 61032 Fano (PU)<br>E&M002: Italy |
| **Scope of application** | This document refers to the production of IT-FLEX C1 made by EVOCELL & MOBIUS S.r.l in Italy plants; there may be differences among the products linked to variations in density and diameter.<br>The unit of measurement declared refers to 1 $m^3$ of IT-FLEX C1 insulation material.<br>The data collected for the production of the environmental product declaration refer to the year 2021. |
| **Program Operator** | EPD ITALY |
| **Independent verification** | This statement was written following the general instructions of the EPD Italy program.<br>Independent verification of the declaration according to ISO 14025: 2010<br>☐Internal ☒External<br>Third-party verification performed by: ICMQ SpA, via De Castillia, 10 – 20124 Milano (www.icmq.it). Accredited by Accredia |
| **UNCPC code** | 3623 Tubes, pipes and hoses of vulcanized rubber other than hard rubber |
| **Corporate contact** | Evocell&Mobius Srl, Via D. Albertario 63/65 Zona Industriale Bellocchi 61032 Fano (PU); tel. +39 0721 854999 |
| **Technical support** | Federica Gilardelli, LCA study director, Greenwich S.r.l., operational headquarters: Via Presolana 2/4, 24030, Medolago (BG); registered office via Vittorio Emanuele II, 179, 24033 Calusco d'Adda – Bergamo; info@greenwichsrl.it |
| **Comparability** | Environmental declarations published within the same product category, but from different programs, may not be comparable. In particular, EPD of construction products may not be comparable if not compliant with EN 15804. |
| **Liability** | Evocell&Mobius Srl relieves EPDItaly from any non-compliance with environmental legislation. The holder of the declaration will be responsible for the information and supporting evidence; EPDItaly declines all responsibility regarding the manufacturer's information, data and results of the life cycle assessment. |
| **PCR and reference document** | This declaration was written following the EPDItaly Program Regulations rev. 5.2 dated 16/02/2022, available on the website www.epditaly.it.<br>PCR ICMQ-001/15 rev 3 Construction products and construction services, EPD Italy. Issuing date: 02/12/2019.<br>The EN 15804:2012 Standard – Sustainability of construction works. Environmental product declarations. Core rules for the product category of construction products. – represents the framework reference for PCR. |

## COMPANY

**"Technological evolutions in elastomer"**

This is the motto that interprets the company philosophy for over 25 years engaged and specialized in the research, experimentation, production and marketing of products and elastomer insulation systems, since more than 25 years. These systems are suitable for satisfying all the problems of thermal and acoustic insulation of the technical components of civil and industrial buildings, with a view to environmental comfort, safety, savings and a more rational use of traditional energy sources.

**Quality control system and Environmental Management System**

The plant complies with the quality control system according to ISO 9001: 2015 and with the Environmental Management System according to ISO 14001:2015. The whole manufacturing process is carried out in compliance to the relevant legal requirements and procedures.

## PRODUCT AND PRODUCTION PROCESS DESCRIPTION

IT-FLEX C1 is a closed cell flexible elastomeric foam (FEF) material without the use of CFC - HCFC, containing no powders, fibers or hazardous substances. This extruded and expanded elastomer thermal insulator is manufactured in compliance with the EN 14304 standard.

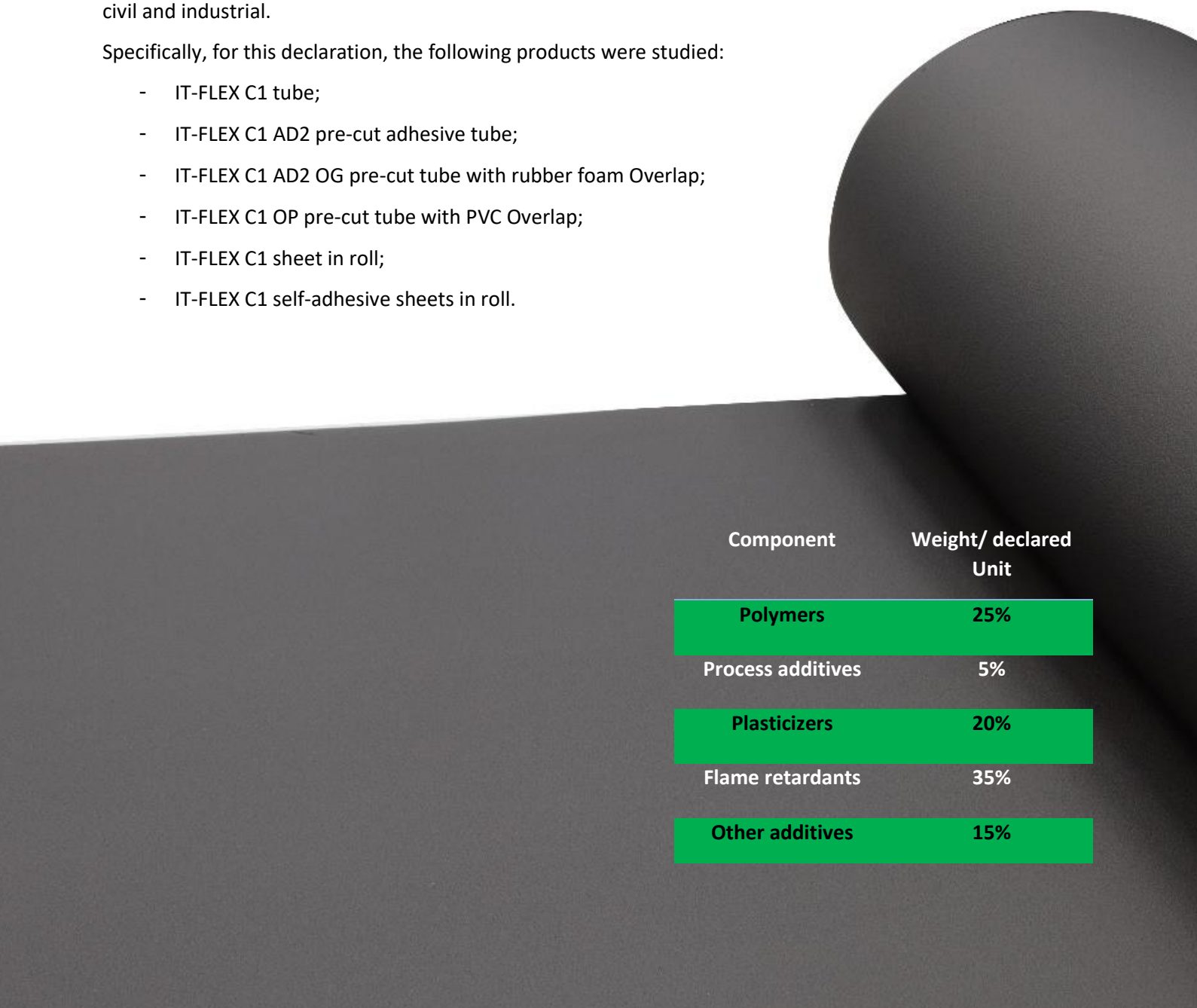
The IT-FLEX C1 product is divided into two main categories:

- Tubes in non-adhesive and adhesive bars, and in continuous rolls in diameters from 6 to 170 mm and in thicknesses from 6 to 60 mm;
- Sheets, in non-adhesive and adhesive plates and rolls with thicknesses from 6 to 60 mm.

IT-FLEX C1 is used as thermal insulation in components of heating, air conditioning, refrigeration systems, both civil and industrial.

Specifically, for this declaration, the following products were studied:

- IT-FLEX C1 tube;
- IT-FLEX C1 AD2 pre-cut adhesive tube;
- IT-FLEX C1 AD2 OG pre-cut tube with rubber foam Overlap;
- IT-FLEX C1 OP pre-cut tube with PVC Overlap;
- IT-FLEX C1 sheet in roll;
- IT-FLEX C1 self-adhesive sheets in roll.



| Component | Weight/ declared Unit |
|---|---|
| **Polymers** | **25%** |
| **Process additives** | **5%** |
| **Plasticizers** | **20%** |
| **Flame retardants** | **35%** |
| **Other additives** | **15%** |

Technical data sheet

# IT-FLEX C1 - C1R - Coil
# Pre-cut tubes - AD2 OG - AD 2

Rev. 04/22

## MATERIAL

Closed-cell flexible elastomeric foam (FEF).

## PRODUCT RANGE

Self-adhesive and standard tubes in bars and in continuous rolls with diameters from 6 to 170 mm and thickness from 6 to 60 mm. Sheets in panels and rolls, standard and self-adhesive, with thicknesses from 6 to 60 mm.
Self-adhesive tapes with a thickness of 3 mm.

## MAIN CHARACTERISTICS

Flexible and expanded CFC and HCFC-free rubber foam.
Does not contain or release dust or fibres.

## PRODUCT SPECIFICATION

Flexible and expanded rubber foam thermal insulation material produced in accordance with the European Standard EN 14304.

## PRODUCT APPLICATION

Thermal insulation of HVAC, refrigeration systems and industrial applications, also for exterior use (C1R version).

## SAFETY AND ENVIRONMENT

EPD (Environmental Product Declaration). Declaration EPDITALY0094. Validity date 24/02/2020 - 24/02/2025. Code UNCPC 3623. Program operator: EPD Italy

| Technical information | Reference data | Test standards |
|---|---|---|
| **SERVICE TEMPERATURES**<br>Max. temperature of transported fluids<br>Min. temperature of transported fluids | <br>+ 110 °C<br>- 50 °C | EN 14706 - 14707 |
| **THERMAL CONDUCTIVITY λ** | Tubes 6-25 mm / Tapes and sheets 3-32 mm: at 0 °C λ ≤ 0,033 W/m•K; at 20 °C λ ≤ 0,035 W/m•K; at 40 °C λ ≤ 0,037 W/m•K<br>Tubes 30-60 mm: at 0 °C λ ≤ 0,036 W/m•K; at 20 °C λ ≤ 0,038 W/m•K; at 40 °C λ ≤ 0,040 W/m•K<br>Sheets 40-60 mm: at 0 °C λ ≤ 0,034 W/m•K; at 20 °C λ ≤ 0,036 W/m•K; at 40 °C λ ≤ 0,038 W/m•K | EN ISO 8497 - EN 12667 |
| **RESISTANCE TO WATER VAPOUR DIFFUSION** μ | Sheets 6-25 mm; Tubes 6-19 mm μ ≥10000<br>Sheets 30-50 mm; Tubes 25-60 mm μ ≥7000 | EN 13469 - EN 12086 |
| **REACTION TO FIRE** | EUROCLASS: TUBES $B_L$-s2,d0; SHEETS B-s3,d0; SHEETS 60 mm: E; TAPES B-s2,d0 | EN 13501 - 1 |
| USA | UL V0 up to thk. 13 mm | |
| UK | CLASS 1 | BS 476 : PART 6 - BS 476 : PART 7 |
| UK | CLASS 0 | |
| SUISSE VKF | FR2/CR PLAQUES - RF2 TUBES | AEAI |
| **SHIPYARDS (MED)** | MEETS REQUIREMENTS | Directive Med 96/98/CE - Module D - Module B |
| **CORROSION RISK** | MEETS REQUIREMENTS | EN 13468 |
| **OZONE RESISTANCE** | EXCELLENT | ISO 7326 |
| **UV RESISTANCE** | GOOD | UNI ISO 4892 - 2 |
| **DIMENSIONAL TOLERANCES** | In accordance with table 1 - European Standard EN 14304 | |

**DESCRIPTION OF THE MANUFACTURING PROCESS**

EVOCELL&MOBIUS S.r.l manufacturing process for the IT-FLEX C1 is divided in the following steps:

-Mixing: the raw materials are mixed up according to the recipe, in order to obtain a homogeneous rubber compound that will be tested in our quality control laboratory.

-Extrusion: the extruding machines are used to process the rubber compound into different shapes (pipes or sheets) to obtain the final product.

-Vulcanization and blowing: the extruded product passes inside an oven with multiple sections. The characteristics of the final product are determined by the recipe and the temperature of this process.

-Stamping, cutting, packaging: the final product is stamped, cut to length and packaged according to the production specifications.

**PRODUCT INSTALLATION**

IT-FLEX C1 is installed by using knives with a long or short blade. In the case of products with adhesives the information given in the relevant safety data sheets is to be heeded. The specific recommendations to be considered for the different type of application of the IT-FLEX C1 are described in the application manual (more details under the website www.evocellmobius.it).

**PACKAGING**

IT-FLEX C1 products are packaged in suitable cardboard boxes according to their size and shape then transported on reusable pallets. The cardboard boxes can be recycled. Only large size products (eg Sheet rolls in large sizes) are packaged into PE bags.

**CONDITION OF USE - SERVICE LIFE**

IT-FLEX C1 is considered a long-lasting product. When used and installed properly it maintains its characteristics and it can have a service life of more than 50 years.

**RE-USE PHASE**

IT-FLEX C1, if properly removed, can be re-used to produce the EVOSOUND OC, a sound and anti-impact isolation product (more details on the website www.evocellmobius.it).

## METHODOLOGY

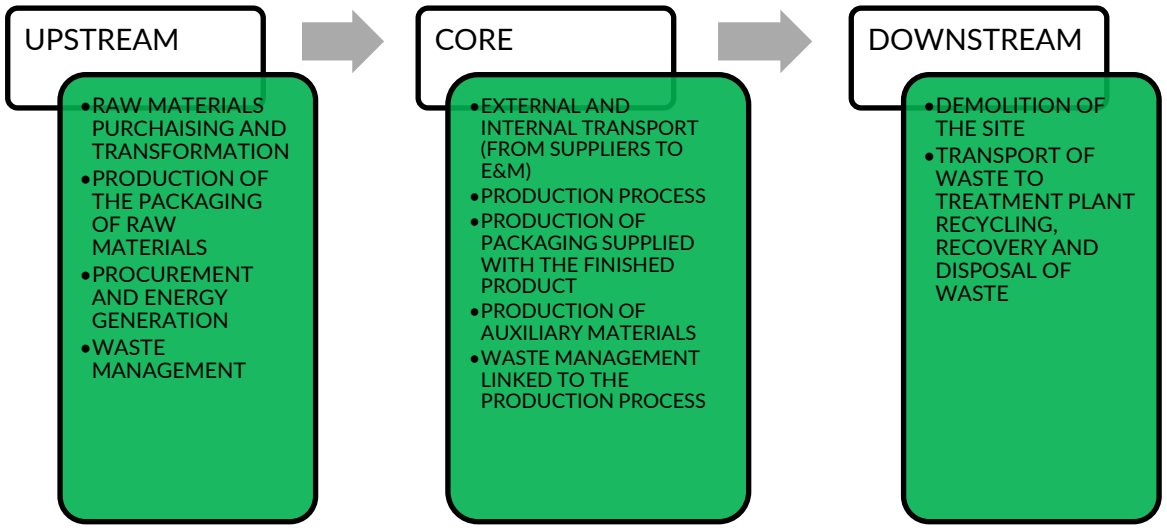
The methodology used is the Life Cycle Assessment (LCA), an international, standardised and comprehensive methodology that evaluates the environmental impacts trough the life cycle of a product. "LCA addresses the environmental aspects and potential environmental impacts (e.g. use of resources and the environmental consequences of releases) throughout a product's life cycle from raw material acquisition through production, use, end-of-life treatment, recycling and final disposal (i.e. cradle-to-grave). This EPD includes production stages (forms A1-A3), end-of-life (forms C1-C4), and benefits and loads beyond the system boundary (form D).

## SCOPE

The scope of the assessment considers the product's life cycle from the supply of raw materials up to the sale of the product, according to the approach "from cradle to gate", also including transport from suppliers to the production site. This EPD includes the production (modules A1-A3) and end of life stages (modules C1-C4), and benefits and loads beyond the system boundaries (module D).

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

*X: module declared; MND: module not declared*




| | |
|---|---|
| **Type of EPD** | The present EPD is a "from cradle to gate" type, with module C and module D. |
| **Geographic validity** | The environmental impacts has been calculated for the production site of Evocell & Mobius srl in Fano (PU). The reference market is global. |
| **Time validity** | The data collection refers to the year 2021. |
| **Database** | Ecoinvent 3.8 |
| **Software:** | SimaPro 9.3.0.3 |

## DECLARED UNIT

The unit chosen for the EPD under investigation is 1 $m^3$ of product for thermal insulation with the brand IT-FLEX C1. This unit has been chosen to take into consideration first the different densities of the individual product. The declared unit has been chosen because it does not refer to the specific function of the product. Finally, all data are allocated to the chosen declared unit.

## ASSUMPTIONS

Regarding the energy calculation, the choice was to consider the total amount of energy consumed during the production process, including those processed supplied to third suppliers, under the control of Evocell&Mobius. The weight of the individual products derives from the sum of each material before the final extrusion. The data of the mass balance has been collected from different sources. First of all, the raw materials processed for the production of semi-finished products were analysed. This information has been calculated separately from the production of different brands produced in 2021 (as reference year).

## CUT-OFF RULES

The cut-off rules have been used during data collection through hypothesis and simplification. Some auxiliary materials used within the production process have been excluded from the study. These simplifications respect the rules defined by the PCR standard used.

## DATA QUALITY

The data collected about weight, mass balance, raw materials, waste and production process are site-specific. In addition, all the data related to the purchasing of raw materials, energy supply, type of transports are from the Ecoinvent 3.8 database.

The quality of the electricity and thermal energy data takes into consideration that the plant sources the required energy from the national energy network, and therefore the Italian "Residual Energy Mix" is adopted as per Ecoinvent database.

Regarding statistical data, the following criteria has been applied throughout the analysis:

- geographical equivalence: for example, systems similar to the Italian standard or to most European systems have been considered;
- technological equivalence: comparable technological systems have been considered;
- equivalence with respect to system boundaries: systems that take into consideration similar inputs and outputs and similar phases have been considered.

The site-specific data refer to the year of production 2021. As regards the generic data, information was considered between 2010 and 2018.

In addition, proxy data has been used for some materials of the mass balance, which were not possible to model accurately with the Ecoinvent database. In any case, proxy data were used for a value of less than 0,32% of the mass balance.

## ALLOCATION

The allocation was made based on the quantities produced respectively in Phase 1 and Phase 2 of the production process. The aspects common to both Phases have been allocated to the quantities relating to Phase 2.

## REFERENCE SCENARIO

As reported in the PCR reference document, the raw material procurement (UPSTREAM), transport and internal production (CORE PROCESS) phases were considered, leaving out the distribution, use and disposal phases (DOWNSTREAM).

For the **Upstream phases**, all impacts due to the production and supply of raw materials were analysed (Module A1) and includes:

- the extraction and processing of the raw materials contained in the expanded rubbers;
- the production of energy used;
- the production and energy supplied for the extraction and transformation of the raw material.

For the Core phase, modules A2 and A3 have been analysed which include:

- external and internal transport within the company
- the production of IT FLEX C1
- the production of the packaging for the finished products
- the production of the auxiliary materials necessary to obtain the finished products
- the management of waste related to the production process.

The **Downstream phase** includes modules C1, C2, C3 and C4, which include:

- demolition of the site
- transport of waste to the recovery / disposal site,
- recycling / recovery
- final landfill.

## RESULTS

The following tables summarize the final impacts. It should be noted that the results are reported as an average of the IT-FLEX C1, considering the different thicknesses and densities, including both pipes and sheets, and any finishes with adhesives and PVC strips. This assumption is allowed, as the results are included within the ±10% range, both for products with high thickness and density, and for those with reduced thickness and density.

**IT-FLEX C1 tube**

## ENVIRONMENTAL IMPACT PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **GWP** | Kg CO2eq | 2,19E+02 | 1,13E+01 | 2,30E+01 | 2,53E+02 | 0,00E+00 | 2,13E-01 | 0,00E+00 | 5,59E+00 | 5,80E+00 | -8,56E-01 |
| **GWP-fossil** | Kg CO2eq | 2,15E+02 | 1,13E+01 | 3,94E+01 | 2,66E+02 | 0,00E+00 | 2,13E-01 | 0,00E+00 | 5,58E+00 | 5,80E+00 | -8,37E-01 |
| **GWP-biogenic** | Kg CO2eq | 2,17E+00 | 7,69E-03 | -1,67E+01 | -1,45E+01 | 0,00E+00 | 1,95E-04 | 0,00E+00 | 3,61E-03 | 3,80E-03 | -1,66E-02 |
| **GWP-land use** | Kg CO2eq | 1,68E+00 | 5,16E-03 | 1,52E-01 | 1,84E+00 | 0,00E+00 | 1,01E-04 | 0,00E+00 | 5,72E-04 | 6,73E-04 | -1,27E-03 |
| **ODP** | Kg CFC11 eq | 4,96E-05 | 2,56E-06 | 3,67E-06 | 5,59E-05 | 0,00E+00 | 4,82E-08 | 0,00E+00 | 1,54E-07 | 2,02E-07 | -4,43E-08 |
| **AP** | Mol H+ eq. | 1,73E+00 | 1,14E-01 | 2,53E-01 | 2,09E+00 | 0,00E+00 | 1,04E-03 | 0,00E+00 | 4,58E-03 | 5,61E-03 | -5,50E-03 |
| **EP-freshwater** | Kg P eq. | 2,75E-01 | 6,67E-04 | 1,18E-02 | 2,87E-01 | 0,00E+00 | 1,61E-05 | 0,00E+00 | 8,39E-05 | 1,00E-04 | -6,20E-04 |
| **EP-marine** | Kg N eq. | 7,69E-01 | 3,25E-02 | 7,41E-02 | 8,76E-01 | 0,00E+00 | 3,45E-04 | 0,00E+00 | 1,02E-01 | 1,02E-01 | -8,34E-04 |
| **EP-terrestrial** | Mol N eq. | 3,28E+00 | 3,59E-01 | 9,43E-01 | 4,58E+00 | 0,00E+00 | 3,77E-03 | 0,00E+00 | 1,65E-02 | 2,03E-02 | -8,06E-03 |
| **POCP** | Kg NMVOC eq. | 8,61E-01 | 9,75E-02 | 1,13E-01 | 1,07E+00 | 0,00E+00 | 1,08E-03 | 0,00E+00 | 5,92E-03 | 7,00E-03 | -1,93E-02 |
| **ADPF** | MJ | 3,86E+03 | 1,67E+02 | 4,30E+02 | 4,46E+03 | 0,00E+00 | 3,20E+00 | 0,00E+00 | 1,22E+01 | 1,54E+01 | -1,41E+01 |
| **ADPE** | Kg Sb eq. | 2,10E+00 | 3,52E-05 | 1,42E-04 | 2,10E+00 | 0,00E+00 | 9,77E-07 | 0,00E+00 | 1,77E-06 | 2,75E-06 | -1,32E-06 |
| **Water Use** | m3 world eq deprived | 1,80E+02 | 4,67E-01 | 2,15E+01 | 2,02E+02 | 0,00E+00 | 1,06E-02 | 0,00E+00 | 5,18E-01 | 5,29E-01 | -1,53E-01 |

## RESOURCE USE PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PERE** | MJ | 3,04E+02 | 2,16E+00 | 3,55E+02 | 6,61E+02 | 0,00E+00 | 5,41E-02 | 0,00E+00 | 2,50E-01 | 3,04E-01 | -2,54E+00 |
| **PERM** | MJ | 7,93E+01 | 0,00E+00 | 0,00E+00 | 7,93E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **PERT** | MJ | 3,83E+02 | 2,16E+00 | 3,55E+02 | 7,41E+02 | 0,00E+00 | 5,41E-02 | 0,00E+00 | 2,50E-01 | 3,04E-01 | -2,54E+00 |
| **PENRE** | MJ | 3,76E+03 | 1,75E+02 | 1,08E+02 | 4,04E+03 | 0,00E+00 | 3,35E+00 | 0,00E+00 | 1,27E+01 | 1,60E+01 | -1,23E+01 |
| **PENRM** | MJ | 2,00E+03 | 0,00E+00 | 0,00E+00 | 2,00E+03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **PENRT** | MJ | 4,14E+03 | 1,77E+02 | 4,63E+02 | 4,78E+03 | 0,00E+00 | 3,40E+00 | 0,00E+00 | 1,29E+01 | 1,63E+01 | -1,48E+01 |
| **SM** | Kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **RSF** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **NRSF** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **FW** | m3 | 4,74E+00 | 1,72E-02 | 6,25E-01 | 5,38E+00 | 0,00E+00 | 4,05E-04 | 0,00E+00 | 1,27E-02 | 1,31E-02 | -1,18E-02 |

## OUTPUT FLOWS AND WASTE CATEGORIES PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **HWD** | kg | 6,31E-03 | 3,92E-04 | 6,16E-04 | 7,32E-03 | 0,00E+00 | 8,58E-06 | 0,00E+00 | 1,84E-05 | 2,70E-05 | -5,14E-06 |
| **NHWD** | kg | 3,36E+01 | 7,31E+00 | 9,73E+00 | 5,07E+01 | 0,00E+00 | 1,36E-01 | 0,00E+00 | 4,78E+01 | 4,79E+01 | -4,67E-02 |
| **RWD** | kg | 1,01E-02 | 1,13E-03 | 1,49E-03 | 1,27E-02 | 0,00E+00 | 2,15E-05 | 0,00E+00 | 7,15E-05 | 9,30E-05 | -9,01E-05 |
| **CRU** | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **MFR** | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **MER** | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **EEE** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **EET** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

## ADDITIONALE ENVIRONMENTAL IMPACTS PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PM** | disease inc. | 1,32E-05 | 8,87E-07 | 3,74E-06 | 1,79E-05 | 0,00E+00 | 1,63E-08 | 0,00E+00 | 8,64E-08 | 1,03E-07 | -3,62E-08 |
| **IRP** | kBq U235 eq. | 2,90E+01 | 8,42E-01 | 3,08E+00 | 3,30E+01 | 0,00E+00 | 1,70E-02 | 0,00E+00 | 5,93E-02 | 7,63E-02 | -3,12E-01 |
| **ETP-fw** | CTUe | 5,28E+04 | 1,26E+02 | 5,27E+02 | 5,35E+04 | 0,00E+00 | 2,61E+00 | 0,00E+00 | 2,55E+01 | 2,81E+01 | -1,34E+01 |
| **HTP-nc** | CTUh | 1,05E-05 | 1,26E-07 | 3,42E-07 | 1,10E-05 | 0,00E+00 | 2,64E-09 | 0,00E+00 | 1,08E-08 | 1,34E-08 | -7,74E-09 |
| **HTP-c** | CTUh | 3,56E-07 | 4,80E-09 | 2,62E-08 | 3,87E-07 | 0,00E+00 | 9,54E-11 | 0,00E+00 | 4,08E-10 | 5,04E-10 | -2,38E-10 |
| **SQP** | Pt | 1,03E+03 | 1,00E+02 | 1,79E+03 | 2,92E+03 | 0,00E+00 | 1,89E+00 | 0,00E+00 | 2,83E+01 | 3,02E+01 | -4,30E+00 |

**IT-FLEX C1 AD2 pre-cut adhesive tube**

## ENVIRONMENTAL IMPACT PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **GWP** | Kg CO2eq | 2,17E+02 | 1,12E+01 | 2,16E+01 | 2,50E+02 | 0,00E+00 | 2,11E-01 | 0,00E+00 | 5,55E+00 | 5,76E+00 | -8,49E-01 |
| **GWP-fossil** | Kg CO2eq | 2,13E+02 | 1,12E+01 | 3,52E+01 | 2,60E+02 | 0,00E+00 | 2,11E-01 | 0,00E+00 | 5,54E+00 | 5,75E+00 | -8,31E-01 |
| **GWP-biogenic** | Kg CO2eq | 2,15E+00 | 7,64E-03 | -1,39E+01 | -1,18E+01 | 0,00E+00 | 1,93E-04 | 0,00E+00 | 3,58E-03 | 3,77E-03 | -1,65E-02 |
| **GWP-land use** | Kg CO2eq | 1,67E+00 | 5,12E-03 | 1,27E-01 | 1,80E+00 | 0,00E+00 | 1,00E-04 | 0,00E+00 | 5,68E-04 | 6,68E-04 | -1,26E-03 |
| **ODP** | Kg CFC11 eq | 4,92E-05 | 2,54E-06 | 3,16E-06 | 5,49E-05 | 0,00E+00 | 4,79E-08 | 0,00E+00 | 1,52E-07 | 2,00E-07 | -4,40E-08 |
| **AP** | Mol H+ eq. | 1,71E+00 | 1,13E-01 | 2,31E-01 | 2,06E+00 | 0,00E+00 | 1,03E-03 | 0,00E+00 | 4,54E-03 | 5,57E-03 | -5,46E-03 |
| **EP-freshwater** | Kg P eq. | 2,72E-01 | 6,62E-04 | 9,93E-03 | 2,83E-01 | 0,00E+00 | 1,60E-05 | 0,00E+00 | 8,33E-05 | 9,93E-05 | -6,16E-04 |
| **EP-marine** | Kg N eq. | 7,63E-01 | 3,23E-02 | 6,33E-02 | 8,59E-01 | 0,00E+00 | 3,42E-04 | 0,00E+00 | 1,01E-01 | 1,01E-01 | -8,28E-04 |
| **EP-terrestrial** | Mol N eq. | 3,25E+00 | 3,56E-01 | 8,70E-01 | 4,48E+00 | 0,00E+00 | 3,74E-03 | 0,00E+00 | 1,64E-02 | 2,02E-02 | -8,00E-03 |
| **POCP** | Kg NMVOC eq. | 8,54E-01 | 9,67E-02 | 9,66E-02 | 1,05E+00 | 0,00E+00 | 1,07E-03 | 0,00E+00 | 5,88E-03 | 6,95E-03 | -1,91E-02 |
| **ADPF** | MJ | 3,83E+03 | 1,66E+02 | 3,68E+02 | 4,36E+03 | 0,00E+00 | 3,18E+00 | 0,00E+00 | 1,21E+01 | 1,53E+01 | -1,40E+01 |
| **ADPE** | Kg Sb eq. | 2,08E+00 | 3,49E-05 | 1,20E-04 | 2,08E+00 | 0,00E+00 | 9,70E-07 | 0,00E+00 | 1,76E-06 | 2,73E-06 | -1,31E-06 |
| **Water Use** | m3 world eq deprived | 1,79E+02 | 4,64E-01 | 1,98E+01 | 1,99E+02 | 0,00E+00 | 1,05E-02 | 0,00E+00 | 5,14E-01 | 5,25E-01 | -1,52E-01 |

## RESOURCE USE PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PERE** | MJ | 3,02E+02 | 2,15E+00 | 2,96E+02 | 6,00E+02 | 0,00E+00 | 5,36E-02 | 0,00E+00 | 2,48E-01 | 3,02E-01 | -2,52E+00 |
| **PERM** | MJ | 7,87E+01 | 0,00E+00 | 0,00E+00 | 7,87E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **PERT** | MJ | 3,80E+02 | 2,15E+00 | 2,96E+02 | 6,79E+02 | 0,00E+00 | 5,36E-02 | 0,00E+00 | 2,48E-01 | 3,02E-01 | -2,52E+00 |
| **PENRE** | MJ | 3,73E+03 | 1,74E+02 | 9,96E+01 | 4,00E+03 | 0,00E+00 | 3,32E+00 | 0,00E+00 | 1,26E+01 | 1,59E+01 | -1,22E+01 |
| **PENRM** | MJ | 1,99E+03 | 0,00E+00 | 0,00E+00 | 1,99E+03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **PENRT** | MJ | 4,11E+03 | 1,76E+02 | 3,96E+02 | 4,68E+03 | 0,00E+00 | 3,37E+00 | 0,00E+00 | 1,28E+01 | 1,62E+01 | -1,47E+01 |
| **SM** | Kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **RSF** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **NRSF** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **FW** | m3 | 4,71E+00 | 1,71E-02 | 5,64E-01 | 5,29E+00 | 0,00E+00 | 4,02E-04 | 0,00E+00 | 1,26E-02 | 1,30E-02 | -1,17E-02 |

## OUTPUT FLOWS AND WASTE CATEGORIES PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **HWD** | kg | 6,26E-03 | 3,89E-04 | 5,29E-04 | 7,18E-03 | 0,00E+00 | 8,51E-06 | 0,00E+00 | 1,83E-05 | 2,68E-05 | -5,10E-06 |
| **NHWD** | kg | 3,34E+01 | 7,25E+00 | 8,77E+00 | 4,94E+01 | 0,00E+00 | 1,35E-01 | 0,00E+00 | 4,74E+01 | 4,75E+01 | -4,63E-02 |
| **RWD** | kg | 1,00E-02 | 1,13E-03 | 1,29E-03 | 1,25E-02 | 0,00E+00 | 2,13E-05 | 0,00E+00 | 7,10E-05 | 9,23E-05 | -8,94E-05 |
| **CRU** | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **MFR** | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **MER** | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **EEE** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **EET** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

## ADDITIONALE ENVIRONMENTAL IMPACTS PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PM** | disease inc. | 1,31E-05 | 8,80E-07 | 3,39E-06 | 1,74E-05 | 0,00E+00 | 1,62E-08 | 0,00E+00 | 8,57E-08 | 1,02E-07 | -3,59E-08 |
| **IRP** | kBq U235 eq. | 2,88E+01 | 8,36E-01 | 2,62E+00 | 3,23E+01 | 0,00E+00 | 1,69E-02 | 0,00E+00 | 5,89E-02 | 7,58E-02 | -3,09E-01 |
| **ETP-fw** | CTUe | 5,24E+04 | 1,25E+02 | 4,49E+02 | 5,30E+04 | 0,00E+00 | 2,59E+00 | 0,00E+00 | 2,53E+01 | 2,79E+01 | -1,33E+01 |
| **HTP-nc** | CTUh | 1,04E-05 | 1,25E-07 | 2,89E-07 | 1,09E-05 | 0,00E+00 | 2,62E-09 | 0,00E+00 | 1,07E-08 | 1,33E-08 | -7,68E-09 |
| **HTP-c** | CTUh | 3,53E-07 | 4,76E-09 | 2,21E-08 | 3,80E-07 | 0,00E+00 | 9,47E-11 | 0,00E+00 | 4,05E-10 | 5,00E-10 | -2,36E-10 |
| **SQP** | Pt | 1,02E+03 | 9,95E+01 | 1,49E+03 | 2,61E+03 | 0,00E+00 | 1,88E+00 | 0,00E+00 | 2,81E+01 | 2,99E+01 | -4,26E+00 |

**IT-FLEX C1 AD2 OG pre-cut tube with rubber foam Overlap**

## ENVIRONMENTAL IMPACT PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **GWP** | Kg CO2eq | 2,18E+02 | 1,12E+01 | 2,15E+01 | 2,51E+02 | 0,00E+00 | 2,12E-01 | 0,00E+00 | 5,56E+00 | 5,77E+00 | -8,51E-01 |
| **GWP-fossil** | Kg CO2eq | 2,14E+02 | 1,12E+01 | 3,48E+01 | 2,60E+02 | 0,00E+00 | 2,12E-01 | 0,00E+00 | 5,55E+00 | 5,76E+00 | -8,33E-01 |
| **GWP-biogenic** | Kg CO2eq | 2,15E+00 | 7,65E-03 | -1,36E+01 | -1,15E+01 | 0,00E+00 | 1,94E-04 | 0,00E+00 | 3,59E-03 | 3,78E-03 | -1,65E-02 |
| **GWP-land use** | Kg CO2eq | 1,67E+00 | 5,13E-03 | 1,25E-01 | 1,80E+00 | 0,00E+00 | 1,00E-04 | 0,00E+00 | 5,69E-04 | 6,69E-04 | -1,27E-03 |
| **ODP** | Kg CFC11 eq | 4,93E-05 | 2,55E-06 | 3,11E-06 | 5,50E-05 | 0,00E+00 | 4,80E-08 | 0,00E+00 | 1,53E-07 | 2,01E-07 | -4,41E-08 |
| **AP** | Mol H+ eq. | 1,72E+00 | 1,13E-01 | 2,29E-01 | 2,06E+00 | 0,00E+00 | 1,03E-03 | 0,00E+00 | 4,55E-03 | 5,58E-03 | -5,47E-03 |
| **EP-freshwater** | Kg P eq. | 2,73E-01 | 6,64E-04 | 9,72E-03 | 2,83E-01 | 0,00E+00 | 1,60E-05 | 0,00E+00 | 8,35E-05 | 9,95E-05 | -6,17E-04 |
| **EP-marine** | Kg N eq. | 7,65E-01 | 3,24E-02 | 6,22E-02 | 8,60E-01 | 0,00E+00 | 3,43E-04 | 0,00E+00 | 1,01E-01 | 1,02E-01 | -8,30E-04 |
| **EP-terrestrial** | Mol N eq. | 3,26E+00 | 3,57E-01 | 8,63E-01 | 4,48E+00 | 0,00E+00 | 3,75E-03 | 0,00E+00 | 1,65E-02 | 2,02E-02 | -8,02E-03 |
| **POCP** | Kg NMVOC eq. | 8,56E-01 | 9,69E-02 | 9,48E-02 | 1,05E+00 | 0,00E+00 | 1,08E-03 | 0,00E+00 | 5,89E-03 | 6,97E-03 | -1,91E-02 |
| **ADPF** | MJ | 3,84E+03 | 1,66E+02 | 3,61E+02 | 4,37E+03 | 0,00E+00 | 3,18E+00 | 0,00E+00 | 1,21E+01 | 1,53E+01 | -1,41E+01 |
| **ADPE** | Kg Sb eq. | 2,09E+00 | 3,50E-05 | 1,18E-04 | 2,09E+00 | 0,00E+00 | 9,72E-07 | 0,00E+00 | 1,76E-06 | 2,74E-06 | -1,31E-06 |
| **Water Use** | m3 world eq deprived | 1,79E+02 | 4,65E-01 | 1,96E+01 | 1,99E+02 | 0,00E+00 | 1,05E-02 | 0,00E+00 | 5,15E-01 | 5,26E-01 | -1,52E-01 |

## RESOURCE USE PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PERE** | MJ | 3,02E+02 | 2,15E+00 | 2,90E+02 | 5,95E+02 | 0,00E+00 | 5,38E-02 | 0,00E+00 | 2,48E-01 | 3,02E-01 | -2,52E+00 |
| **PERM** | MJ | 7,89E+01 | 0,00E+00 | 0,00E+00 | 7,89E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **PERT** | MJ | 3,81E+02 | 2,15E+00 | 2,90E+02 | 6,73E+02 | 0,00E+00 | 5,38E-02 | 0,00E+00 | 2,48E-01 | 3,02E-01 | -2,52E+00 |
| **PENRE** | MJ | 3,74E+03 | 1,74E+02 | 9,82E+01 | 4,01E+03 | 0,00E+00 | 3,33E+00 | 0,00E+00 | 1,26E+01 | 1,60E+01 | -1,22E+01 |
| **PENRM** | MJ | 1,99E+03 | 0,00E+00 | 0,00E+00 | 1,99E+03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **PENRT** | MJ | 4,12E+03 | 1,76E+02 | 3,88E+02 | 4,68E+03 | 0,00E+00 | 3,38E+00 | 0,00E+00 | 1,29E+01 | 1,63E+01 | -1,48E+01 |
| **SM** | Kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **RSF** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **NRSF** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **FW** | m3 | 4,72E+00 | 1,71E-02 | 5,58E-01 | 5,29E+00 | 0,00E+00 | 4,02E-04 | 0,00E+00 | 1,26E-02 | 1,30E-02 | -1,17E-02 |

## OUTPUT FLOWS AND WASTE CATEGORIES PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **HWD** | kg | 6,28E-03 | 3,90E-04 | 5,20E-04 | 7,19E-03 | 0,00E+00 | 8,53E-06 | 0,00E+00 | 1,83E-05 | 2,69E-05 | -5,11E-06 |
| **NHWD** | kg | 3,35E+01 | 7,27E+00 | 8,68E+00 | 4,94E+01 | 0,00E+00 | 1,35E-01 | 0,00E+00 | 4,75E+01 | 4,76E+01 | -4,64E-02 |
| **RWD** | kg | 1,01E-02 | 1,13E-03 | 1,27E-03 | 1,25E-02 | 0,00E+00 | 2,13E-05 | 0,00E+00 | 7,11E-05 | 9,24E-05 | -8,96E-05 |
| **CRU** | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **MFR** | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **MER** | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **EEE** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **EET** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

## ADDITIONALE ENVIRONMENTAL IMPACTS PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PM** | disease inc. | 1,32E-05 | 8,82E-07 | 3,36E-06 | 1,74E-05 | 0,00E+00 | 1,63E-08 | 0,00E+00 | 8,59E-08 | 1,02E-07 | -3,60E-08 |
| **IRP** | kBq U235 eq. | 2,89E+01 | 8,38E-01 | 2,57E+00 | 3,23E+01 | 0,00E+00 | 1,69E-02 | 0,00E+00 | 5,90E-02 | 7,59E-02 | -3,10E-01 |
| **ETP-fw** | CTUe | 5,26E+04 | 1,25E+02 | 4,40E+02 | 5,31E+04 | 0,00E+00 | 2,60E+00 | 0,00E+00 | 2,53E+01 | 2,79E+01 | -1,33E+01 |
| **HTP-nc** | CTUh | 1,05E-05 | 1,25E-07 | 2,84E-07 | 1,09E-05 | 0,00E+00 | 2,63E-09 | 0,00E+00 | 1,07E-08 | 1,34E-08 | -7,69E-09 |
| **HTP-c** | CTUh | 3,54E-07 | 4,77E-09 | 2,17E-08 | 3,80E-07 | 0,00E+00 | 9,49E-11 | 0,00E+00 | 4,06E-10 | 5,01E-10 | -2,37E-10 |
| **SQP** | Pt | 1,02E+03 | 9,98E+01 | 1,46E+03 | 2,58E+03 | 0,00E+00 | 1,88E+00 | 0,00E+00 | 2,81E+01 | 3,00E+01 | -4,27E+00 |

**IT-FLEX C1 OP pre-cut tube with PVC Overlap**

## ENVIRONMENTAL IMPACT PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **GWP** | Kg CO2eq | 2,13E+02 | 1,10E+01 | 2,09E+01 | 2,45E+02 | 0,00E+00 | 2,07E-01 | 0,00E+00 | 5,43E+00 | 5,64E+00 | -8,31E-01 |
| **GWP-fossil** | Kg CO2eq | 2,09E+02 | 1,10E+01 | 3,38E+01 | 2,54E+02 | 0,00E+00 | 2,07E-01 | 0,00E+00 | 5,43E+00 | 5,63E+00 | -8,14E-01 |
| **GWP-biogenic** | Kg CO2eq | 2,10E+00 | 7,48E-03 | -1,32E+01 | -1,11E+01 | 0,00E+00 | 1,89E-04 | 0,00E+00 | 3,50E-03 | 3,69E-03 | -1,61E-02 |
| **GWP-land use** | Kg CO2eq | 1,64E+00 | 5,01E-03 | 1,21E-01 | 1,76E+00 | 0,00E+00 | 9,81E-05 | 0,00E+00 | 5,56E-04 | 6,54E-04 | -1,24E-03 |
| **ODP** | Kg CFC11 eq | 4,82E-05 | 2,49E-06 | 3,01E-06 | 5,37E-05 | 0,00E+00 | 4,69E-08 | 0,00E+00 | 1,49E-07 | 1,96E-07 | -4,30E-08 |
| **AP** | Mol H+ eq. | 1,68E+00 | 1,10E-01 | 2,23E-01 | 2,01E+00 | 0,00E+00 | 1,01E-03 | 0,00E+00 | 4,45E-03 | 5,45E-03 | -5,35E-03 |
| **EP-freshwater** | Kg P eq. | 2,67E-01 | 6,48E-04 | 9,43E-03 | 2,77E-01 | 0,00E+00 | 1,56E-05 | 0,00E+00 | 8,15E-05 | 9,72E-05 | -6,03E-04 |
| **EP-marine** | Kg N eq. | 7,47E-01 | 3,16E-02 | 6,03E-02 | 8,39E-01 | 0,00E+00 | 3,35E-04 | 0,00E+00 | 9,90E-02 | 9,93E-02 | -8,10E-04 |
| **EP-terrestrial** | Mol N eq. | 3,19E+00 | 3,48E-01 | 8,41E-01 | 4,37E+00 | 0,00E+00 | 3,66E-03 | 0,00E+00 | 1,61E-02 | 1,97E-02 | -7,84E-03 |
| **POCP** | Kg NMVOC eq. | 8,36E-01 | 9,47E-02 | 9,19E-02 | 1,02E+00 | 0,00E+00 | 1,05E-03 | 0,00E+00 | 5,75E-03 | 6,81E-03 | -1,87E-02 |
| **ADPF** | MJ | 3,75E+03 | 1,62E+02 | 3,50E+02 | 4,26E+03 | 0,00E+00 | 3,11E+00 | 0,00E+00 | 1,18E+01 | 1,49E+01 | -1,37E+01 |
| **ADPE** | Kg Sb eq. | 2,04E+00 | 3,42E-05 | 1,14E-04 | 2,04E+00 | 0,00E+00 | 9,49E-07 | 0,00E+00 | 1,72E-06 | 2,67E-06 | -1,28E-06 |
| **Water Use** | m3 world eq deprived | 1,75E+02 | 4,54E-01 | 1,91E+01 | 1,95E+02 | 0,00E+00 | 1,03E-02 | 0,00E+00 | 5,04E-01 | 5,14E-01 | -1,49E-01 |

## RESOURCE USE PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PERE** | MJ | 2,95E+02 | 2,10E+00 | 2,81E+02 | 5,78E+02 | 0,00E+00 | 5,25E-02 | 0,00E+00 | 2,43E-01 | 2,95E-01 | -2,47E+00 |
| **PERM** | MJ | 7,70E+01 | 0,00E+00 | 0,00E+00 | 7,70E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **PERT** | MJ | 3,72E+02 | 2,10E+00 | 2,81E+02 | 6,56E+02 | 0,00E+00 | 5,25E-02 | 0,00E+00 | 2,43E-01 | 2,95E-01 | -2,47E+00 |
| **PENRE** | MJ | 3,65E+03 | 1,70E+02 | 9,56E+01 | 3,92E+03 | 0,00E+00 | 3,25E+00 | 0,00E+00 | 1,23E+01 | 1,56E+01 | -1,20E+01 |
| **PENRM** | MJ | 1,94E+03 | 0,00E+00 | 0,00E+00 | 1,94E+03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **PENRT** | MJ | 4,02E+03 | 1,72E+02 | 3,77E+02 | 4,57E+03 | 0,00E+00 | 3,30E+00 | 0,00E+00 | 1,26E+01 | 1,59E+01 | -1,44E+01 |
| **SM** | Kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **RSF** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **NRSF** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **FW** | m3 | 4,61E+00 | 1,67E-02 | 5,43E-01 | 5,17E+00 | 0,00E+00 | 3,93E-04 | 0,00E+00 | 1,23E-02 | 1,27E-02 | -1,15E-02 |

## OUTPUT FLOWS AND WASTE CATEGORIES PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **HWD** | kg | 6,13E-03 | 3,81E-04 | 5,05E-04 | 7,02E-03 | 0,00E+00 | 8,33E-06 | 0,00E+00 | 1,79E-05 | 2,62E-05 | -4,99E-06 |
| **NHWD** | kg | 3,27E+01 | 7,10E+00 | 8,44E+00 | 4,82E+01 | 0,00E+00 | 1,32E-01 | 0,00E+00 | 4,64E+01 | 4,65E+01 | -4,54E-02 |
| **RWD** | kg | 9,83E-03 | 1,10E-03 | 1,23E-03 | 1,22E-02 | 0,00E+00 | 2,08E-05 | 0,00E+00 | 6,95E-05 | 9,03E-05 | -8,75E-05 |
| **CRU** | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **MFR** | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **MER** | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **EEE** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **EET** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

## ADDITIONALE ENVIRONMENTAL IMPACTS PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PM** | disease inc. | 1,29E-05 | 8,62E-07 | 3,27E-06 | 1,70E-05 | 0,00E+00 | 1,59E-08 | 0,00E+00 | 8,40E-08 | 9,98E-08 | -3,51E-08 |
| **IRP** | kBq U235 eq. | 2,82E+01 | 8,18E-01 | 2,49E+00 | 3,15E+01 | 0,00E+00 | 1,65E-02 | 0,00E+00 | 5,77E-02 | 7,42E-02 | -3,03E-01 |
| **ETP-fw** | CTUe | 5,13E+04 | 1,22E+02 | 4,27E+02 | 5,19E+04 | 0,00E+00 | 2,54E+00 | 0,00E+00 | 2,47E+01 | 2,73E+01 | -1,30E+01 |
| **HTP-nc** | CTUh | 1,02E-05 | 1,22E-07 | 2,75E-07 | 1,06E-05 | 0,00E+00 | 2,57E-09 | 0,00E+00 | 1,05E-08 | 1,31E-08 | -7,52E-09 |
| **HTP-c** | CTUh | 3,46E-07 | 4,66E-09 | 2,10E-08 | 3,71E-07 | 0,00E+00 | 9,27E-11 | 0,00E+00 | 3,97E-10 | 4,89E-10 | -2,31E-10 |
| **SQP** | Pt | 9,98E+02 | 9,75E+01 | 1,42E+03 | 2,51E+03 | 0,00E+00 | 1,84E+00 | 0,00E+00 | 2,75E+01 | 2,93E+01 | -4,18E+00 |

**IT-FLEX C1 self-adhesive sheets in roll**

## ENVIRONMENTAL IMPACT PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **GWP** | Kg CO2eq | 1,98E+02 | 8,02E+00 | 2,35E+01 | 2,30E+02 | 0,00E+00 | 1,84E-01 | 0,00E+00 | 4,83E+00 | 5,02E+00 | -7,19E-01 |
| **GWP-fossil** | Kg CO2eq | 1,95E+02 | 8,01E+00 | 3,11E+01 | 2,34E+02 | 0,00E+00 | 1,84E-01 | 0,00E+00 | 4,83E+00 | 5,01E+00 | -7,04E-01 |
| **GWP-biogenic** | Kg CO2eq | 1,99E+00 | 5,51E-03 | -7,65E+00 | -5,65E+00 | 0,00E+00 | 1,68E-04 | 0,00E+00 | 3,12E-03 | 3,29E-03 | -1,39E-02 |
| **GWP-land use** | Kg CO2eq | 1,46E+00 | 3,64E-03 | 3,69E-02 | 1,50E+00 | 0,00E+00 | 8,73E-05 | 0,00E+00 | 4,95E-04 | 5,82E-04 | -1,07E-03 |
| **ODP** | Kg CFC11 eq | 4,39E-05 | 1,82E-06 | 1,35E-06 | 4,71E-05 | 0,00E+00 | 4,17E-08 | 0,00E+00 | 1,33E-07 | 1,74E-07 | -3,72E-08 |
| **AP** | Mol H+ eq. | 1,53E+00 | 7,91E-02 | 5,38E-02 | 1,66E+00 | 0,00E+00 | 8,97E-04 | 0,00E+00 | 3,96E-03 | 4,85E-03 | -4,63E-03 |
| **EP-freshwater** | Kg P eq. | 2,39E-01 | 4,75E-04 | 3,18E-03 | 2,43E-01 | 0,00E+00 | 1,39E-05 | 0,00E+00 | 7,26E-05 | 8,65E-05 | -5,21E-04 |
| **EP-marine** | Kg N eq. | 6,71E-01 | 2,28E-02 | 2,06E-02 | 7,14E-01 | 0,00E+00 | 2,98E-04 | 0,00E+00 | 8,81E-02 | 8,84E-02 | -7,01E-04 |
| **EP-terrestrial** | Mol N eq. | 2,90E+00 | 2,51E-01 | 1,68E-01 | 3,31E+00 | 0,00E+00 | 3,26E-03 | 0,00E+00 | 1,43E-02 | 1,76E-02 | -6,78E-03 |
| **POCP** | Kg NMVOC eq. | 7,65E-01 | 6,82E-02 | 4,51E-02 | 8,79E-01 | 0,00E+00 | 9,36E-04 | 0,00E+00 | 5,12E-03 | 6,06E-03 | -1,62E-02 |
| **ADPF** | MJ | 3,53E+03 | 1,19E+02 | 1,69E+02 | 3,81E+03 | 0,00E+00 | 2,77E+00 | 0,00E+00 | 1,05E+01 | 1,33E+01 | -1,19E+01 |
| **ADPE** | Kg Sb eq. | 1,81E+00 | 2,51E-05 | 4,58E-05 | 1,81E+00 | 0,00E+00 | 8,45E-07 | 0,00E+00 | 1,53E-06 | 2,38E-06 | -1,11E-06 |
| **Water Use** | m3 world eq deprived | 1,59E+02 | 3,32E-01 | 1,79E+01 | 1,77E+02 | 0,00E+00 | 9,16E-03 | 0,00E+00 | 4,48E-01 | 4,57E-01 | -1,29E-01 |

## RESOURCE USE PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PERE** | MJ | 2,70E+02 | 1,54E+00 | 1,44E+02 | 4,15E+02 | 0,00E+00 | 4,67E-02 | 0,00E+00 | 2,16E-01 | 2,63E-01 | -2,13E+00 |
| **PERM** | MJ | 6,91E+01 | 0,00E+00 | 0,00E+00 | 6,91E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **PERT** | MJ | 3,39E+02 | 1,54E+00 | 1,44E+02 | 4,84E+02 | 0,00E+00 | 4,67E-02 | 0,00E+00 | 2,16E-01 | 2,63E-01 | -2,13E+00 |
| **PENRE** | MJ | 3,45E+03 | 1,24E+02 | 3,72E+01 | 3,61E+03 | 0,00E+00 | 2,89E+00 | 0,00E+00 | 1,10E+01 | 1,39E+01 | -1,03E+01 |
| **PENRM** | MJ | 1,73E+03 | 0,00E+00 | 0,00E+00 | 1,73E+03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **PENRT** | MJ | 3,78E+03 | 1,26E+02 | 1,81E+02 | 4,09E+03 | 0,00E+00 | 2,94E+00 | 0,00E+00 | 1,12E+01 | 1,41E+01 | -1,25E+01 |
| **SM** | Kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **RSF** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **NRSF** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **FW** | m3 | 4,17E+00 | 1,23E-02 | 4,45E-01 | 4,63E+00 | 0,00E+00 | 3,50E-04 | 0,00E+00 | 1,10E-02 | 1,13E-02 | -9,91E-03 |

## OUTPUT FLOWS AND WASTE CATEGORIES PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **HWD** | kg | 5,61E-03 | 2,80E-04 | 2,37E-04 | 6,13E-03 | 0,00E+00 | 7,42E-06 | 0,00E+00 | 1,59E-05 | 2,34E-05 | -4,32E-06 |
| **NHWD** | kg | 2,94E+01 | 5,22E+00 | 6,19E+00 | 4,08E+01 | 0,00E+00 | 1,17E-01 | 0,00E+00 | 4,13E+01 | 4,14E+01 | -3,92E-02 |
| **RWD** | kg | 9,09E-03 | 8,05E-04 | 5,84E-04 | 1,05E-02 | 0,00E+00 | 1,86E-05 | 0,00E+00 | 6,18E-05 | 8,04E-05 | -7,57E-05 |
| **CRU** | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **MFR** | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **MER** | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **EEE** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **EET** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

## ADDITIONALE ENVIRONMENTAL IMPACTS PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PM** | disease inc. | 1,16E-05 | 6,32E-07 | 6,88E-07 | 1,29E-05 | 0,00E+00 | 1,41E-08 | 0,00E+00 | 7,47E-08 | 8,89E-08 | -3,04E-08 |
| **IRP** | kBq U235 eq. | 2,63E+01 | 5,98E-01 | 9,71E-01 | 2,78E+01 | 0,00E+00 | 1,47E-02 | 0,00E+00 | 5,13E-02 | 6,60E-02 | -2,62E-01 |
| **ETP-fw** | CTUe | 4,58E+04 | 8,95E+01 | 1,61E+02 | 4,60E+04 | 0,00E+00 | 2,26E+00 | 0,00E+00 | 2,20E+01 | 2,43E+01 | -1,12E+01 |
| **HTP-nc** | CTUh | 9,16E-06 | 8,94E-08 | 1,12E-07 | 9,36E-06 | 0,00E+00 | 2,28E-09 | 0,00E+00 | 9,33E-09 | 1,16E-08 | -6,50E-09 |
| **HTP-c** | CTUh | 3,09E-07 | 3,39E-09 | 1,33E-08 | 3,26E-07 | 0,00E+00 | 8,25E-11 | 0,00E+00 | 3,53E-10 | 4,35E-10 | -2,00E-10 |
| **SQP** | Pt | 9,04E+02 | 7,16E+01 | 7,55E+02 | 1,73E+03 | 0,00E+00 | 1,63E+00 | 0,00E+00 | 2,45E+01 | 2,61E+01 | -3,61E+00 |

**IT-FLEX C1 sheet in roll**

## ENVIRONMENTAL IMPACT PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **GWP** | Kg CO2eq | 2,00E+02 | 8,18E+00 | 2,60E+01 | 2,34E+02 | 0,00E+00 | 1,88E-01 | 0,00E+00 | 4,93E+00 | 5,12E+00 | -7,34E-01 |
| **GWP-fossil** | Kg CO2eq | 1,96E+02 | 8,17E+00 | 3,39E+01 | 2,38E+02 | 0,00E+00 | 1,88E-01 | 0,00E+00 | 4,93E+00 | 5,12E+00 | -7,18E-01 |
| **GWP-biogenic** | Kg CO2eq | 2,02E+00 | 5,62E-03 | -7,94E+00 | -5,92E+00 | 0,00E+00 | 1,72E-04 | 0,00E+00 | 3,18E-03 | 3,35E-03 | -1,42E-02 |
| **GWP-land use** | Kg CO2eq | 1,49E+00 | 3,72E-03 | 5,35E-02 | 1,54E+00 | 0,00E+00 | 8,91E-05 | 0,00E+00 | 5,05E-04 | 5,94E-04 | -1,09E-03 |
| **ODP** | Kg CFC11 eq | 4,47E-05 | 1,86E-06 | 1,68E-06 | 4,83E-05 | 0,00E+00 | 4,26E-08 | 0,00E+00 | 1,36E-07 | 1,78E-07 | -3,80E-08 |
| **AP** | Mol H+ eq. | 1,55E+00 | 8,07E-02 | 6,62E-02 | 1,70E+00 | 0,00E+00 | 9,15E-04 | 0,00E+00 | 4,04E-03 | 4,95E-03 | -4,72E-03 |
| **EP-freshwater** | Kg P eq. | 2,44E-01 | 4,85E-04 | 4,38E-03 | 2,49E-01 | 0,00E+00 | 1,42E-05 | 0,00E+00 | 7,41E-05 | 8,83E-05 | -5,32E-04 |
| **EP-marine** | Kg N eq. | 6,83E-01 | 2,32E-02 | 2,79E-02 | 7,34E-01 | 0,00E+00 | 3,05E-04 | 0,00E+00 | 8,99E-02 | 9,02E-02 | -7,16E-04 |
| **EP-terrestrial** | Mol N eq. | 2,94E+00 | 2,56E-01 | 2,11E-01 | 3,40E+00 | 0,00E+00 | 3,33E-03 | 0,00E+00 | 1,46E-02 | 1,79E-02 | -6,92E-03 |
| **POCP** | Kg NMVOC eq. | 7,73E-01 | 6,97E-02 | 5,35E-02 | 8,96E-01 | 0,00E+00 | 9,55E-04 | 0,00E+00 | 5,23E-03 | 6,18E-03 | -1,65E-02 |
| **ADPF** | MJ | 3,52E+03 | 1,21E+02 | 1,98E+02 | 3,83E+03 | 0,00E+00 | 2,83E+00 | 0,00E+00 | 1,07E+01 | 1,36E+01 | -1,21E+01 |
| **ADPE** | Kg Sb eq. | 1,85E+00 | 2,56E-05 | 5,67E-05 | 1,85E+00 | 0,00E+00 | 8,62E-07 | 0,00E+00 | 1,57E-06 | 2,43E-06 | -1,13E-06 |
| **Water Use** | m3 world eq deprived | 1,61E+02 | 3,39E-01 | 1,89E+01 | 1,80E+02 | 0,00E+00 | 9,35E-03 | 0,00E+00 | 4,57E-01 | 4,67E-01 | -1,31E-01 |

## RESOURCE USE PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PERE** | MJ | 2,74E+02 | 1,57E+00 | 1,58E+02 | 4,34E+02 | 0,00E+00 | 4,77E-02 | 0,00E+00 | 2,20E-01 | 2,68E-01 | -2,18E+00 |
| **PERM** | MJ | 6,86E+01 | 0,00E+00 | 0,00E+00 | 6,86E+01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **PERT** | MJ | 3,42E+02 | 1,57E+00 | 1,58E+02 | 5,02E+02 | 0,00E+00 | 4,77E-02 | 0,00E+00 | 2,20E-01 | 2,68E-01 | -2,18E+00 |
| **PENRE** | MJ | 3,43E+03 | 1,27E+02 | 5,49E+01 | 3,61E+03 | 0,00E+00 | 2,95E+00 | 0,00E+00 | 1,12E+01 | 1,42E+01 | -1,06E+01 |
| **PENRM** | MJ | 1,77E+03 | 0,00E+00 | 0,00E+00 | 1,77E+03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **PENRT** | MJ | 3,77E+03 | 1,29E+02 | 2,13E+02 | 4,11E+03 | 0,00E+00 | 3,00E+00 | 0,00E+00 | 1,14E+01 | 1,44E+01 | -1,27E+01 |
| **SM** | Kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **RSF** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **NRSF** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **FW** | m3 | 4,23E+00 | 1,25E-02 | 4,82E-01 | 4,72E+00 | 0,00E+00 | 3,57E-04 | 0,00E+00 | 1,12E-02 | 1,16E-02 | -1,01E-02 |

## OUTPUT FLOWS AND WASTE CATEGORIES PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **HWD** | kg | 5,72E-03 | 2,85E-04 | 2,89E-04 | 6,29E-03 | 0,00E+00 | 7,57E-06 | 0,00E+00 | 1,63E-05 | 2,38E-05 | -4,41E-06 |
| **NHWD** | kg | 2,99E+01 | 5,33E+00 | 6,82E+00 | 4,20E+01 | 0,00E+00 | 1,20E-01 | 0,00E+00 | 4,21E+01 | 4,23E+01 | -4,00E-02 |
| **RWD** | kg | 9,23E-03 | 8,22E-04 | 7,09E-04 | 1,08E-02 | 0,00E+00 | 1,89E-05 | 0,00E+00 | 6,31E-05 | 8,20E-05 | -7,73E-05 |
| **CRU** | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **MFR** | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **MER** | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **EEE** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| **EET** | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |

## ADDITIONALE ENVIRONMENTAL IMPACTS PER DECLARED UNIT

| Impact | UM | A1 | A2 | A3 | A1-A3 | C1 | C2 | C3 | C4 | C1-C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PM** | disease inc. | 1,18E-05 | 6,45E-07 | 8,91E-07 | 1,33E-05 | 0,00E+00 | 1,44E-08 | 0,00E+00 | 7,63E-08 | 9,07E-08 | -3,10E-08 |
| **IRP** | kBq U235 eq. | 2,66E+01 | 6,11E-01 | 1,26E+00 | 2,85E+01 | 0,00E+00 | 1,50E-02 | 0,00E+00 | 5,24E-02 | 6,74E-02 | -2,67E-01 |
| **ETP-fw** | CTUe | 4,67E+04 | 9,14E+01 | 2,07E+02 | 4,70E+04 | 0,00E+00 | 2,31E+00 | 0,00E+00 | 2,25E+01 | 2,48E+01 | -1,15E+01 |
| **HTP-nc** | CTUh | 9,32E-06 | 9,12E-08 | 1,40E-07 | 9,55E-06 | 0,00E+00 | 2,33E-09 | 0,00E+00 | 9,53E-09 | 1,19E-08 | -6,64E-09 |
| **HTP-c** | CTUh | 3,15E-07 | 3,46E-09 | 1,39E-08 | 3,32E-07 | 0,00E+00 | 8,42E-11 | 0,00E+00 | 3,60E-10 | 4,44E-10 | -2,04E-10 |
| **SQP** | Pt | 9,20E+02 | 7,30E+01 | 8,16E+02 | 1,81E+03 | 0,00E+00 | 1,67E+00 | 0,00E+00 | 2,50E+01 | 2,66E+01 | -3,69E+00 |

***GWP** = Global warming potential; **ODP** = Depletion potential of the stratospheric ozone layer; **AP** = Acidification potential of land and water; **EP** = Eutrophication potential; **POCP** = Formation potential of tropospheric ozone photochemical oxidants; **ADPE** = Abiotic depletion potential for non-fossil resources; **ADPF** = Abiotic depletion potential for fossil resources; **PERE** = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; **PERM** = Use of renewable primary energy resources used as raw materials; **PERT** = Total use of renewable primary energy resources; **PENRE** = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; **PENRM** = Use of non-renewable primary energy resources used as raw materials; **PENRT** = Total use of non- renewable primary energy resources; **SM** = Use of secondary material; **RSF** = Use of renewable secondary fuels; **NRSF** = Use of non-renewable secondary fuels; **FW** = Use of net fresh water*

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

## BIOGENIC CARBON

| BIOGENIC CARBON | IT-FLEX C1 sheet in roll | IT-FLEX C1 self-adhesive sheets in roll | IT-FLEX C1 tube | IT-FLEX C1 AD2 pre-cut adhesive tube | IT-FLEX C1 AD2 OG pre-cut tube with rubber foam Overlap | IT-FLEX C1 OP pre-cut tube with PVC Overlap |
|---|---|---|---|---|---|---|
| Product [kg C] | 0,14 | 0,14 | 0,16 | 0,16 | 0,16 | 0,16 |
| Packaging [kg C] | 5,95 | 4,75 | 15,24 | 12,72 | 12,45 | 12,07 |

## REFERENCES


[1] UNI EN ISO 14040:2021, Gestione ambientale – Valutazione del ciclo di vita – Principi e quadro di riferimento.

[2] UNI EN ISO 14044:2021, Gestione ambientale – Valutazione del ciclo di vita – Requisiti e linee guida.

[3] UNI EN ISO 14025:2010, Etichette e dichiarazioni ambientali - Dichiarazioni ambientali di Tipo III - Principi e procedure

[4] UNI EN 15804:2012+A2:2019, Sostenibilità delle costruzioni – Dichiarazioni ambientali di prodotto – Regole chiave di sviluppo per categoria di prodotto.

[5] PCR ICMQ-001/15 rev 3 Prodotti da costruzione e servizi per costruzione, EPD Italy. Data di emissione: 02/12/2019.

[6] Regolamento EPDItaly rev. 5.2 del 16/02/2022

[7] Background report: Evocell&Mobius. Analisi del ciclo di vita di prodotti di isolamento termico IT-FLEX C1 - Giugno 2022. Redatto da F. Gilardelli. Rev. 10 del 13/09/2023