

# Environmental Product Declaration

In accordance with ISO 14025:2006 and EN 15804+A2:2022

PVC wall channel, partition walls and trunkings LR and LP



Manufacturer: KOPOS KOLÍN a.s.

Program: National environmental labeling program

Program Operator: Ministry of the Environment of the Czech Republic

Product Category Rules: EN 15804+A2:2022

EPD registration number: EPD-Sk09-25-10

EPD for a product group, based on the worst values of the impact category indicator results

Valid from: 2025-10-09

## General information

Program: National environmental labeling program

Program Operator: Ministry of the Environment of the Czech Republic

Manufacturer: KOPOS KOLÍN a.s., Havlíčkova 432, Kolín 28002, Kolín IV, Czech Republic

EPD registration number: EPD-Sk09-25-10

Declared unit: 1 kg of PVC product covered by this EPD

Product Category Rules: EN 15804+A2:2022

Owner of the EPD: KOPOS KOLÍN a.s.

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Created by: Bc. Ivana Fiedlerová

Valid from: 2025-10-09

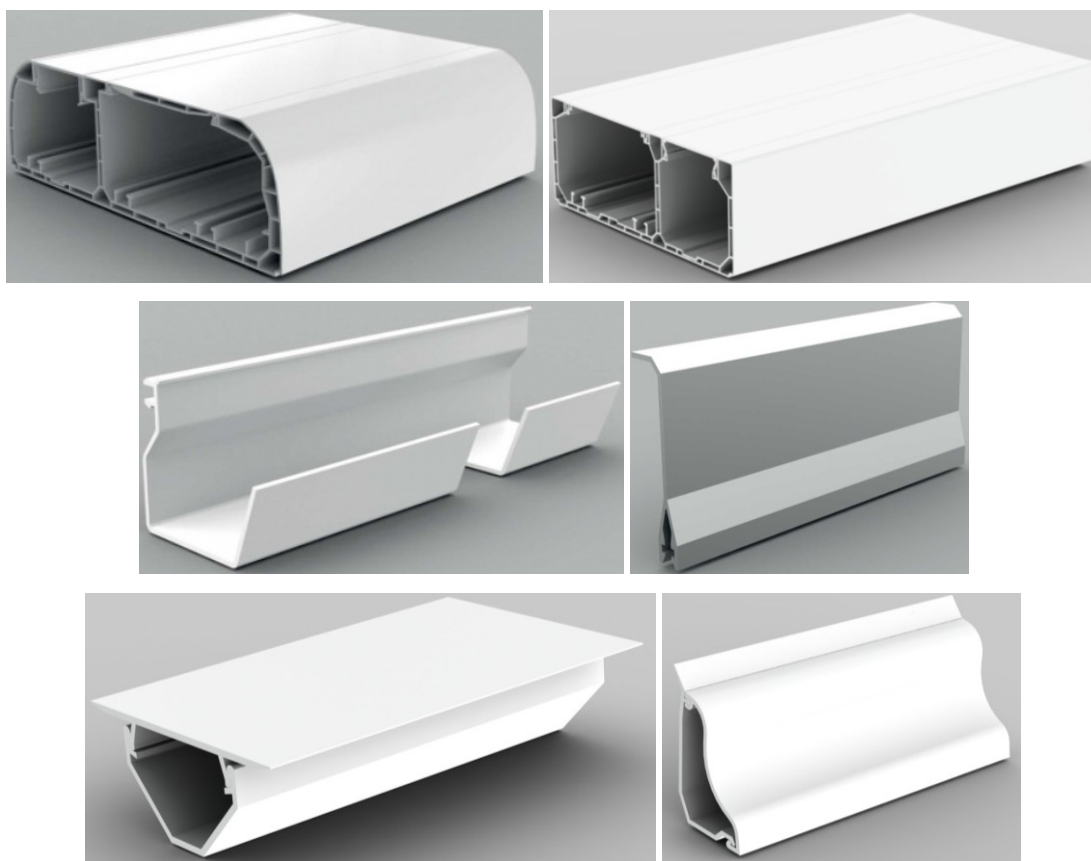
Validity: 5 years

Expiration date: 2030-10-08

The EPD owner has the sole ownership and responsibility for the EPD.

EPDs within a category are not necessarily comparable. For two EPDs to be comparable, they must be based on the same product category principle, cover products with the same functions, technical characteristics and use – the same declared unit must be used. They must have equivalent system boundaries, data quality requirements, data collection methods and allocation procedures.

## PVC Wall channel, partition walls and trunkings LR and LP



### Company information

KOPOS KOLÍN a.s. is one of the traditional manufacturers of electrical installation materials in the Czech Republic, where it has been operating on the market for many years. We successfully continue the tradition of manufacturing wiring storage material in Kolín, which was started in 1926. Since 1962, the technical development of the plant has also dealt with the technology of processing plastic materials in connection with applications for wiring storage material. Thanks to modern technology, continuous product development is possible. In 2023, the construction of a PV plant was started, which was successfully completed in 2024.

Increasing market demands in the Czech Republic and abroad led the company to expand in Europe in 1997 and then overseas. Now KOPOS KOLÍN a.s. is part of the holding structure of KOPOS HOLDING, a.s.

The company has been ISO 9001 certified since 1997. In 2001, it was awarded the Safe Enterprise certificate and ISO 14001 certificate. In 2018, the company obtained ISO 50001 certification. All these certifications are verified and the certificates are renewed.

### Product information

PVC trunkings, Wall channel are designed for small and low wiring installations. They are suitable for installing electrical wiring on base materials with fire reaction class A1 – F, whether on walls, ceilings, or floors.

PVC trunkings, Wall channel can be installed in areas with a risk of explosion of flammable gases and vapors in zone 2 and in areas with a risk of explosion of flammable dust in zone 22.

All electrical installation PVC trunkings, Wall channel are antibacterial – they do not support the growth of bacteria.

## Technical information

PVC trunkings, Wall channel are are manufactured in several variants. The dimensions of the PVC trunkings, Wall channel are indicated in the product type name.

Color coding: F = black, H = white, K = light gray, L = dark gray, S = light wood, T = dark wood, I1 = pink birch, I2 = dark oak

Length and packaging type marking: A = 3 m in foil, C = 2 m in foil, D = 2 m in cardboard.

*Tab. 1 – technical information about products*

| Item No.    | Weight<br>[kg/m] | Item Name                     |
|-------------|------------------|-------------------------------|
| PK 130X65 D | 1,250            | HOLLOW WALL TRUNKING          |
| PK 160X65 D | 1,248            | HOLLOW WALL TRUNKING          |
| PK 170X65 D | 1,530            | HOLLOW WALL TRUNKING          |
| PK 210X70 D | 1,914            | HOLLOW WALL TRUNKING          |
| PKS 70/60   | 0,121            | PARTITION WALL WITH AL FOIL   |
| PEP 60      | 0,230            | PARTITION WALL FOR EKE AND PK |
| LR 30       | 0,375            | CORNER TRUNKING               |
| LP 35       | 0,236            | FLOOR TRUNKING                |

Products are made in compliance with ČSN EN 50085-1ed.2:2006+A1:2014 a ČSN EN 50085-2-1:2007+A1:2012.

Temperature resistance of PVC trunkings and Wall channel: -5 °C to +60 °C

*Tab. 2 – Information on composition*

| Item                                           | Material    | % representation | Biogenic carbon<br>kg CO2 eq/kg |
|------------------------------------------------|-------------|------------------|---------------------------------|
| PVC wall channels and<br>partition wall PEP 60 | Primary PVC | 80–90 %          | 1,19E-02                        |
|                                                | Additives   | 10–20 %          |                                 |
| PVC partition wall PKS<br>70/60                | Primary PVC | 80–87 %          | 8,29E-03                        |
|                                                | Additives   | 10–17 %          |                                 |
|                                                | Al foil     | 3 %              |                                 |
| Trunking LP 35 and LR<br>30                    | Primary PVC | 80–87 %          | 1,58E-02                        |
|                                                | Additives   | 10–17 %          |                                 |
|                                                | Soften PVC  | 3 %              |                                 |

The products do not contain SVHC (Substances of very high concern) in excess of 0,1 % w/w according to the List of SVHC available at the date of issue of the EPD.

*Tab. 3 – Information on packaging*

| Type of<br>packaging | %<br>representation | Biogenic<br>carbon<br>kg CO2 eq/kg |
|----------------------|---------------------|------------------------------------|
| PE packaging         | 1                   | 5,27E-02                           |
| cardboard            | 10                  | 1,19E+00                           |

## LCA: Calculation rules

### Declare unit

Jako deklarovaná jednotka byl použit 1 kg výrobku. Jelikož dopady všech započtených výrobků nesplňují pravidlo 10 %, byly použity nejhorší dopady v každé kategorii. OK

### Reference service life

1 kg of product was used as the declared unit. Since the impacts of all products included do not meet the 10 % rule, the worst impacts in each category were used.

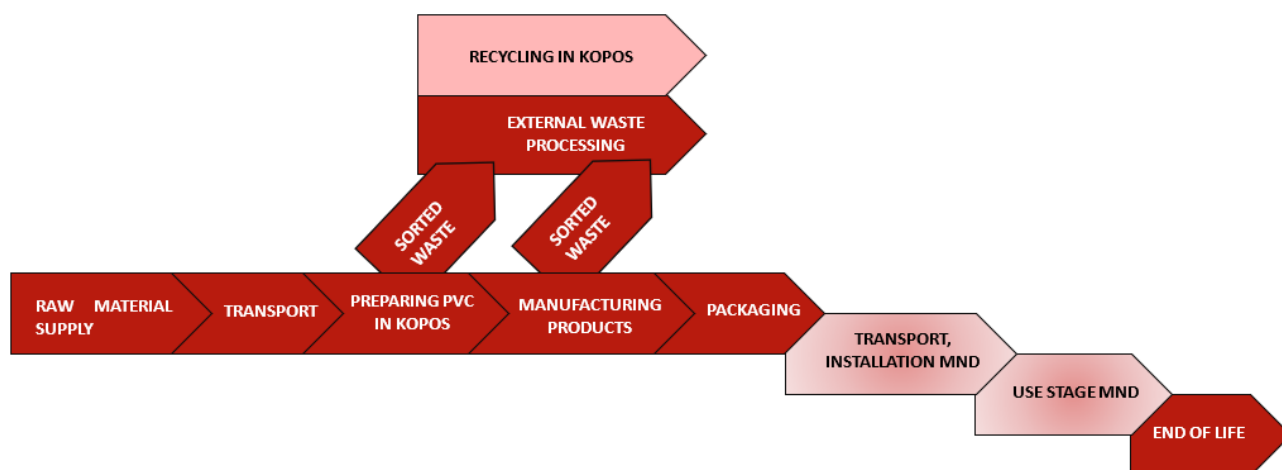
### Product system and system boundaries

This EPD is a cradle-to-gate type with modules C1 - C4 and module D.

Tab. 4 – Declared modules

|                        | Product stage       |           |               | Construct ion<br>processes<br>stage |                                       | Use stage |             |        |             |               |                        |                       | End of life stage          |           |                  |          | Supplementary<br>information<br>beyond<br>construction<br>works life cycle |
|------------------------|---------------------|-----------|---------------|-------------------------------------|---------------------------------------|-----------|-------------|--------|-------------|---------------|------------------------|-----------------------|----------------------------|-----------|------------------|----------|----------------------------------------------------------------------------|
|                        | Raw material supply | Transport | Manufacturing | Transport                           | Construction – installation porcesses | Use       | Maintenance | Repair | Replacement | Refurbishment | Operational energy use | Operational water use | Deconstruction, demolition | Transport | Waste processing | Disposal | Reuse, recovery, recycling potential                                       |
| Module                 | A1                  | A2        | A3            | A4                                  | A5                                    | B1        | B2          | B3     | B4          | B5            | B6                     | B7                    | C1                         | C2        | C3               | C4       | D                                                                          |
| Modules declared       | X                   | X         | X             |                                     |                                       |           |             |        |             |               |                        |                       | X                          | X         | X                | X        | X                                                                          |
| Geography              | RER                 | RER       | CZ            |                                     |                                       |           |             |        |             |               |                        |                       | RER                        | RER       | RER              | RER      | RER                                                                        |
| Variation - products   | 59 %                |           |               | ND                                  | ND                                    | ND        | ND          | ND     | ND          | ND            | ND                     | ND                    | -                          | -         | -                | -        | -                                                                          |
| Variation - sites      | 0 %                 |           |               |                                     |                                       |           |             |        |             |               |                        |                       | -                          | -         | -                | -        | -                                                                          |
| Share of specific data | 75 %                |           |               |                                     |                                       |           |             |        |             |               |                        |                       | -                          | -         | -                | -        | -                                                                          |

ND – not declared



Picture No. 1 – Light parts indicate undeclared modules and processes outside the system boundaries

## Raw material and its transport, A1 + A2

All these raw materials are sourced from the European market. The transport of raw materials varies depending on the quantity and the supplier.

## Manufacturing A3

All products included in this EPD are made in KOPOS KOLÍN a.s., in Kolín, in the Czech Republic.

Production consists of preparing the material in the PVC mixing plant and then transporting it to the production line, where it is sucked in and melted. The melt is extruded through a mold, where it acquires the desired shape and dimensions. The product is then cooled with water, which fixes its profile. The product is then marked with a print wall channel are supplemented with protective foil and partition wall PKS with aluminum foil. Finally, they are divided into the required length and number of pieces, and the PVC wall channels or partition walls are then packaged in a specific manner (in foil or cardboard).

## Waste treatment

At least 75% of the waste generated during production is recycled directly in the KOPOS KOLÍN a.s. production plant (grinding, regranulation, reuse).

## Transport and installation, A4 – A5, ND

The products are transported worldwide, usually via a warehouse, which then handles distribution to customers. No additional waste is generated during installation in the time of construction, nor is there any significant environmental impact. These modules were not included in the LCA.

## Use stage, module B, ND

PVC trunkings, Wall channel and partition walls are long-life products. However, due to the declared limits of the system, durability was not taken into account.

No maintenance is required during the use phase (except for routine cleaning of surfaces) and a complete replacement is assumed as a repair. This phase was not included in the LCA.

## End of life stage, module C

Dismantling may occur in the event of reconstruction or demolition of the building. If we consider the most common use, then this is the use on the surface. In this case, the original product has to be removed and replaced with a new one. Apart from the replaced product, no other waste is generated.

Transport to the waste disposal facility was assumed to be 100 km.

A model of 25% recycling, 45% incineration and 30% landfilling was used for waste treatment, based on the report The circular economy for plastic A European Overview published by Plastic Europe AISBL in 2022. The proportions have been adjusted for the partition wall with the aluminium foil.

## Module D

The product is fully recyclable. The use of this property is modeled in module D as a possible benefit against the used model of 25% recycling, 45% incineration and 30% landfilling.

## Preconditions and measures taken

Administrative processes were not included in the analysis. In addition, processes related to the production of production equipment. The packaging included is based on the smallest sales unit.

## Exclusion rules

Flows smaller than 0.001 % were excluded from the model.

## Data sources

Production data for 2023 available from the D365FO information system was used as the initial source of information, with additional information calculated from this. In addition, information from suppliers and also from the Ecoinvent database, version 3.11, was used. If there is a major change in 2024 that is permanent, these changes are included (PV installation).

## Data quality

Geographical representativeness – data was used as known from suppliers and customers. For processing in the Czech Republic, data from the Czech Republic was used (e.g. Czech country energy mix) and for suppliers from Europe, European data was used (e.g. supplied materials). Everything is

based on information that is known to us. Geographical representativeness is marked in Tab. 3 – Declared modules.

Temporal representativeness – the supply data used is for 2023. If there is a major change in 2024 that is permanent, these changes are included (PV installation). 9 z 13

Technological representativeness – information on the technology used has been taken from production data.

## Allocation

The production of PVC trunkings, Wall channel and partition walls generates waste, which is largely processed in KOPOS KOLÍN a.s. and reused in further production. All inputs that come with the material (i.e. packaging) are allocated to PVC trunkings, Wall channel and partition walls and the subsequent recyclate remains unencumbered by these inputs. Returnable and non-returnable waste is based on production figures from 2023.

The GWP of electricity used in phase A3 includes the electricity needed to prepare the material in the mixing plant and the electricity needed to manufacture the final product.

If it is possible to manufacture a product on several machines, the average energy consumption is used. If an input is supplied by multiple suppliers, the values used for that input are the average of all those suppliers.

## Variability of products

The products differ in diameter (and therefore weight), colour and length (and therefore packaging). Their impacts do not meet the 10% rule (according to ISO 21930:2018), so the worst values in each impact category are used as the results presented.

## LCA: Results

Tab. 5 – Impact categories

| Impact category                         | Unit                   | A1-A3    | C1       | C2       | C3        | C4        | D        |
|-----------------------------------------|------------------------|----------|----------|----------|-----------|-----------|----------|
| Acidification                           | mol H <sup>+</sup> eq  | 1,81E-02 | 0,00E+00 | 4,64E-05 | 1,46E-04  | 4,97E-05  | 8,25E-05 |
| Climate change                          | kg CO <sub>2</sub> eq  | 4,32E+00 | 0,00E+00 | 1,10E-02 | 5,68E-01  | 2,30E-01  | 6,50E-02 |
| Climate change – Biogenic               | kg CO <sub>2</sub> eq  | 3,38E-02 | 0,00E+00 | 3,80E-06 | 4,82E-01  | 2,07E-01  | 2,03E-02 |
| Climate change – Fossil                 | kg CO <sub>2</sub> eq  | 4,29E+00 | 0,00E+00 | 1,10E-02 | 1,95E-01  | 2,29E-02  | 2,52E-02 |
| Climate change – Land use and LU change | kg CO <sub>2</sub> eq  | 2,95E-03 | 0,00E+00 | 5,04E-06 | 1,07E-05  | 3,60E-06  | 1,95E-02 |
| Eutrophication, marine                  | kg N eq                | 3,24E-03 | 0,00E+00 | 1,66E-05 | 6,35E-04  | 2,74E-04  | 3,22E-05 |
| Eutrophication, freshwater              | kg P eq                | 9,21E-04 | 0,00E+00 | 1,19E-06 | 5,04E-05  | 2,17E-05  | 2,62E-06 |
| Eutrophication, terrestrial             | mol N eq               | 3,23E-02 | 0,00E+00 | 1,81E-04 | 5,88E-04  | 1,46E-04  | 3,29E-04 |
| Ozone depletion                         | kg CFC11 eq            | 1,45E-06 | 0,00E+00 | 5,78E-12 | 5,68E-11  | 4,87E-12  | 1,08E-11 |
| Photochemical ozone formation           | kg NMVOC eq            | 1,26E-02 | 0,00E+00 | 6,61E-05 | 2,29E-04  | 1,15E-04  | 1,16E-04 |
| Ionising radiation *                    | kBq U-235 eq           | 5,78E-01 | 0,00E+00 | 1,37E-04 | 2,88E-04  | 1,39E-04  | 4,14E-04 |
| Resource use, fossils **                | MJ                     | 9,41E+01 | 0,00E+00 | 1,93E-02 | 3,52E-02  | 1,14E-02  | 3,81E-02 |
| Resource use, minerals and metals **    | kg Sb eq               | 3,04E-05 | 0,00E+00 | 3,07E-08 | 3,11E-08  | 8,28E-09  | 5,15E-08 |
| Ecotoxicity, freshwater **              | CTUe                   | 9,10E+01 | 0,00E+00 | 5,14E-02 | 1,32E+01  | 5,69E+00  | 3,64E-01 |
| Human toxicity, cancer **               | CTUh                   | 1,61E-09 | 0,00E+00 | 1,79E-12 | 7,55E-11  | 5,38E-12  | 6,58E-12 |
| Human toxicity, non-cancer **           | CTUh                   | 9,60E-08 | 0,00E+00 | 1,01E-10 | 2,41E-09  | 8,25E-10  | 2,49E-10 |
| Land use **                             | Pt                     | 1,54E+01 | 0,00E+00 | 1,57E-01 | 4,09E-01  | 1,80E-01  | 1,33E-01 |
| Water use **                            | m <sup>3</sup> depriv. | 1,39E+01 | 0,00E+00 | 8,23E-04 | -2,18E-02 | -4,87E-02 | 2,82E-02 |

\* **disclaimer 1:** This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

\*\* **disclaimer 2:** The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.

Tab. 6 – GWP used energy in module A3

| Global warming potential of used energy in module A3 | Unit          | A3       |
|------------------------------------------------------|---------------|----------|
| Climate change                                       | kg CO2 eq/kWh | 6,43E-01 |

Tab. 7 – Composition of electricity

| Energy    | Unit | A1 – A3  | C1       | C2       | C3       | C4       | D        |
|-----------|------|----------|----------|----------|----------|----------|----------|
| Renewable | MJ   | 9,10E+00 | 0,00E+00 | 2,20E-03 | 5,32E-03 | 2,06E-03 | 1,90E+00 |
| Fossil    | MJ   | 9,95E+01 | 0,00E+00 | 2,96E-02 | 5,37E-02 | 1,66E-02 | 5,46E-02 |
| Nuclear   | MJ   | 1,26E+01 | 0,00E+00 | 2,16E-03 | 4,51E-03 | 2,17E-03 | 6,87E-03 |
| Other     | MJ   | 2,29E-03 | 0,00E+00 | 7,62E-06 | 3,78E-05 | 9,55E-06 | 4,92E-05 |

Tab. 8 – Other environmental information

| Waste         | Unit | A1 – A3  | C1       | C2       | C3       | C4       | D        |
|---------------|------|----------|----------|----------|----------|----------|----------|
| Harazdous     | kg   | 6,81E-01 | 0,00E+00 | 1,05E-06 | 3,05E-06 | 1,26E-06 | 1,53E-06 |
| Non-hazardous | kg   | 3,72E-01 | 0,00E+00 | 1,33E-02 | 7,02E-01 | 3,01E-01 | 2,51E-02 |
| Radioactive   | kg   | 1,12E-04 | 0,00E+00 | 3,35E-08 | 7,07E-08 | 3,36E-08 | 1,04E-07 |

Tab. 9 – Parametres describing resource use

| Resource use                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit           | A1 – A3  | C1       | C2       | C3        | C4        | D        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------|----------|----------|-----------|-----------|----------|
| PERE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | MJ             | 5,74E+00 | 0,00E+00 | 1,70E-03 | 3,94E-03  | 1,65E-03  | 1,90E+00 |
| PERM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | MJ             | 3,36E+00 | 0,00E+00 | 5,02E-04 | 1,38E-03  | 4,04E-04  | 1,20E-03 |
| PERT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | MJ             | 9,10E+00 | 0,00E+00 | 2,20E-03 | 5,32E-03  | 2,06E-03  | 1,90E+00 |
| PENRE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | MJ             | 1,12E+02 | 0,00E+00 | 3,18E-02 | 5,82E-02  | 1,87E-02  | 6,14E-02 |
| PENRM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | MJ             | 2,29E-03 | 0,00E+00 | 7,62E-06 | 3,78E-05  | 9,55E-06  | 4,92E-05 |
| PENRT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | MJ             | 1,12E+02 | 0,00E+00 | 3,18E-02 | 5,82E-02  | 1,87E-02  | 6,15E-02 |
| SM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | kg             | 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 |
| NRSF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | MJ             | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00 |
| FW                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | m <sup>3</sup> | 1,39E+01 | 0,00E+00 | 8,23E-04 | -2,18E-02 | -4,87E-02 | 2,82E-02 |
| PERE – Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM – Use of renewable primary energy resources used as raw materials; PERT – Total use of renewable primary energy resources; PENRE – Use of non renewable primary energy excluding non renewable primary energy resources used as raw materials; PENRM – Use of non renewable primary energy resources used as raw materials; PENRT – Total use of non renewable primary energy resources; SM – Use of secondary material; RSF – Use of renewable secondary fuels; NRSF – Use of non renewable secondary fuels; FW – Net use of fresh water |                |          |          |          |           |           |          |

## LCA: Interpretation

From the above-mentioned results of the environmental impacts, it can be seen that the most significant of the environmental impact of the assessed modules is in the production module, in phases A1-A3. Specifically, it is the use of fossil resources, where the most significant part makes PVC, which is used for production.

The LCIA results are relative and do not predict the ultimate impacts of each category, threshold exceedances, safety margins or risks.

## Sources

Report The circular economy for plastic A European Overview, Plastic Europe AISBL, 2022

Ecoinvent, version 3.11

SimaPro LCA Package, Pré Consultants, the Netherlands, [www.pre-sustainability.com](http://www.pre-sustainability.com), version 3

ČSN EN 15804+A2:2022 Sustainability of construction works – Environmental product declarations – Core rules for the product category

ČSN ISO 21930:2018 Sustainability in buildings and civil engineering works – Core rules for environmental product declarations of construction products and services

Catalogues, product documentation

## EPD Verification

|                                                                                     |          |                                                                                                                                                   |          |
|-------------------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Independent verification of declarations and data in accordance with ISO 14025:2006 |          |                                                                                                                                                   |          |
| Standard ČSN EN 15804+A2 developed by CEN serves as baseline PCR*.                  |          |                                                                                                                                                   |          |
| <input type="checkbox"/>                                                            | Internal | <input checked="" type="checkbox"/>                                                                                                               | External |
|                                                                                     |          | Verifier:                                                                                                                                         |          |
|                                                                                     |          | prof. Ing. Vladimír Kočí, PhD, MBA<br><a href="http://www.lca.cz">www.lca.cz</a><br>Approved individual verifier of The International EPD® System |          |
| *PCR – Product Category Rules                                                       |          |                                                                                                                                                   |          |