



# **Product Environmental Profile Distribution trunking system LFS**



# **Company information**

#### Hager

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# **References covered**

| All references cove | ered: LFS2002009010, | LFS2002009016,  |
|---------------------|----------------------|-----------------|
| LFS200200VERZ,      | LFS2003009016,       | LFS200300VERZ,  |
| LFS3003009016,      | LFS300300VERZ,       | LFS3004509010,  |
| LFS3004509016,      | LFS300450VERZ,       | LFS4006009010,  |
| LFS4006009016,      | LFS400600VERZ,       | LFS6006009010,  |
| LFS6006009016,      | LFS600600VERZ,       | LFS6010009010,  |
| LFS6010009016,      | LFS601000VERZ,       | LFS6015009010,  |
| LFS6015009016,      | LFS601500VERZ,       | LFS60200090101, |
| LFS60200090161, LF  | S602000VERZ1 and the | ir accessories  |

# Methodology

PEP has been performed according to the PCR version PEP–PCR–ed3-2015 04 02 and PSR version PSR-0003-ed1.1-2015 10 16 issued by the PEP ecopassport program.

For further information, please see the website of the program www.pep-ecopassport.org

# Reference product

#### Reference product identification

Distribution trunking system LFS4006009016 - Trunking 40x60 traffic white

#### **PSR** product Category:

Trunking Systems and Conduit Systems

# **Functional unit**

Accommodate and protect the wiring along 1 meter for a reference life time of 20 years. The distribution trunking system with cross section 2400 mm² includes the profile and accessories representative of standard use.

The functional unit is based on the use scenario recommended by the PCR for the category of the reference product.

### **Materials and substances**

All useful measures have been adopted to ensure that the materials used in the composition of the product do not contain any substances banned by the legislation in force at the time of marketing.

| Plastics                |             |      | Metals    |         |       | Others            |       |      |
|-------------------------|-------------|------|-----------|---------|-------|-------------------|-------|------|
|                         | g           | %    |           | g       | %     |                   | g     | %    |
| Epoxy resin             | 15.48       | 0.8% | Steel     | 1858.80 | 95.2% | Cardboard + Paper | 85.95 | 4.4% |
| Polyester resin         | 15.48       | 0.8% | Calcium   | 2.58    | 0.1%  | Titanium dioxide  | 12.90 | 0.7% |
| PA6                     | 8.24        | 0.4% |           |         |       | Others            | 5.19  | 0.3% |
|                         |             |      |           |         |       |                   |       |      |
|                         |             |      |           |         |       |                   |       |      |
|                         |             |      |           |         |       |                   |       |      |
| Total mass of reference | e product : |      | 1952.81 g |         |       |                   |       |      |

# **Manufacturing**

These products are manufactured by a site that has received an environmental certification ISO 14001.

#### **Distribution**

The packaging has been designed in accordance with current regulations. In particular, the European directive 94/62/CE relative to packaging and packaging waste.

The used packaging is 100% recyclable or recoverable.

Packaging and logistic flows are continuously improved in order to reduce their impact.

#### Installation

#### Installation processes

The processes to install the product are not considered in this study because of their weak impact compared to the other life cycles steps.

#### Installation elements (non delivered with the product)

Elements non delivered with the product and needed to install the product are not considered.

### Use

For the considered scenario, the product has no energy consumption.

Energy model of the use phase:

None

Consumables and maintenance:

None

# **End of life**

Considering the complexity and the lack of knowledge of the electric and electronic recycling channel and processes, the standard scenario set in the PCR is considered.

The recycling potential of the product is: 91%. The calculation of this rate is based on the method of the IEC/TR 62635.

# **Environmental impacts**

Evaluation of the environmental impact covers the following life cycle stages: raw materials + manufacturing (RMM), distribution (D), installation (I), use (U) and end of life (EoL).

All calculations are done with EIME software version 5.9.1 with the database version CODDE-2020-12.

PEP representative of the covered products marketed in: Europe

Energy models considered for each phase

| Manufacturing | Distribution | Installation | Use | End Of Life |
|---------------|--------------|--------------|-----|-------------|
| RMM           | D            | 1.0          | U   | EoL         |
| Europe        | -            | Europe       | -   | Europe      |

#### **Environmental impact indicators**

| Indicators                                    | Unit                      | Manufacturing<br>RMM | Distribution<br>D | Installation<br>I | Use<br>U | End Of Life<br>EoL | GLOBAL   |
|---|---------------------------|----------------------|-------------------|-------------------|----------|--------------------|----------|
| Global Warming                                | kg CO₂ eq.                | 1.14E+01             | 3.40E-01          | 8.74E-03          | 0.00E+00 | 1.17E-01           | 1.18E+01 |
| Ozone Depletion                               | kg CFC-11 eq.             | 6.10E-08             | 6.89E-10          | 5.88E-11          | 0.00E+00 | 7.66E-10           | 6.25E-08 |
| Acidification of soil and water               | kg SO2 eq                 | 3.15E-02             | 1.53E-03          | 4.06E-05          | 0.00E+00 | 4.95E-04           | 3.36E-02 |
| Eutrophication                                | kg PO <sub>4</sub> 3- eq. | 3.72E-03             | 3.51E-04          | 5.23E-05          | 0.00E+00 | 8.26E-04           | 4.95E-03 |
| Photochemical Ozone Creation                  | kg C₂H₄ eq.               | 4.09E-03             | 1.09E-04          | 2.93E-06          | 0.00E+00 | 3.71E-05           | 4.24E-03 |
| Depletion of abiotic resources - elements     | kg Sb eq                  | 1.38E-04             | 1.36E-08          | 3.76E-10          | 0.00E+00 | 4.93E-09           | 1.38E-04 |
| Depletion of abiotic resources – fossil fuels | MJ                        | 1.10E+02             | 4.78E+00          | 1.13E-01          | 0.00E+00 | 1.43E+00           | 1.17E+02 |
| Water Pollution                               | m³                        | 3.10E+02             | 5.59E+01          | 1.31E+00          | 0.00E+00 | 1.67E+01           | 3.84E+02 |
| Air Pollution                                 | m³                        | 1.63E+03             | 1.39E+01          | 8.68E-01          | 0.00E+00 | 6.67E+00           | 1.65E+03 |

#### Resource use indicators

| Indicators  | Unit | Manufacturing<br>RMM | Distribution<br>D | Installation<br>I | Use<br>U | End Of Life<br>EoL | GLOBAL   |
|---|------|----------------------|-------------------|-------------------|----------|--------------------|----------|
| Use of renewable primary energy, excluding renewable primary energy resources used as raw materials         | MJ   | 3.61E+00             | 6.41E-03          | 1.07E-03          | 0.00E+00 | 7.98E-03           | 3.63E+00 |
| Use of renewable primary energy resources as raw materials  |      | 0.00E+00             | 0.00E+00          | 0.00E+00          | 0.00E+00 | 0.00E+00           | 0.00E+00 |
| Total use of renewable primary energy resources   | MJ   | 3.61E+00             | 6.41E-03          | 1.07E-03          | 0.00E+00 | 7.98E-03           | 3.63E+00 |
| Use of non-renewable primary energy, excluding non renewable primary energy resources used as raw materials | MJ   | 6.55E+02             | 4.80E+00          | 1.15E-01          | 0.00E+00 | 1.46E+00           | 6.62E+02 |
| Use of non-renewable primary energy resources as raw materials  | MJ   | 9.47E-01             | 0.00E+00          | 0.00E+00          | 0.00E+00 | 0.00E+00           | 9.47E-01 |
| Total use of non renewable primary energy resources   | MJ   | 6.56E+02             | 4.80E+00          | 1.15E-01          | 0.00E+00 | 1.46E+00           | 6.63E+02 |
| Total use of primary energy   | MJ   | 6.60E+02             | 4.81E+00          | 1.16E-01          | 0.00E+00 | 1.46E+00           | 6.66E+02 |
| Use of secondary materials  | kg   | 1.37E+00             | 0.00E+00          | 0.00E+00          | 0.00E+00 | 0.00E+00           | 1.37E+00 |
| Use of renewable secondary fuels  | MJ   | 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   | 0.00E+00             | 0.00E+00          | 0.00E+00          | 0.00E+00 | 0.00E+00           | 0.00E+00 |
| Net fresh water use   | m³   | 6.34E-01             | 3.04E-05          | 2.55E-06          | 0.00E+00 | 3.05E-05           | 6.34E-01 |

#### Waste category indicators

| Indicators                   | Unit | Manufacturing<br>RMM | Distribution<br>D | Installation<br>I | Use<br>U | End Of Life<br>EoL | GLOBAL   |
|------------------------------|------|----------------------|-------------------|-------------------|----------|--------------------|----------|
| Hazardous waste disposed     | kg   | 3.31E+00             | 1.21E-02          | 1.42E-01          | 0.00E+00 | 1.84E+00           | 5.31E+00 |
| Non-hazardous waste disposed | kg   | 1.92E-02             | 0.00E+00          | 2.25E-05          | 0.00E+00 | 1.03E-04           | 1.94E-02 |
| Radioactive waste disposed   | kg   | 8.73E-04             | 8.61E-06          | 7.33E-07          | 0.00E+00 | 9.57E-06           | 8.92E-04 |

#### **Output flow indicators**

| Indicators                    | Unit | Manufacturing<br>RMM | Distribution<br>D | Installation<br>I | Use<br>U | End Of Life<br>EoL | GLOBAL   |
|-------------------------------|------|----------------------|-------------------|-------------------|----------|--------------------|----------|
| Components for re-use         | kg   | 0.00E+00             | 0.00E+00          | 0.00E+00          | 0.00E+00 | 0.00E+00           | 0.00E+00 |
| Materials for recycling       | kg   | 0.00E+00             | 0.00E+00          | 0.00E+00          | 0.00E+00 | 0.00E+00           | 0.00E+00 |
| Materials for energy recovery | kg   | 0.00E+00             | 0.00E+00          | 0.00E+00          | 0.00E+00 | 0.00E+00           | 0.00E+00 |
| Exported energy               | MJ   | 0.00E+00             | 0.00E+00          | 0.00E+00          | 0.00E+00 | 0.00E+00           | 0.00E+00 |

The environmental impact of a system covered by the PEP Ecopassport® other than the reference system for which it was drawn up can be calculated by multiplying the values of the environmental indicators by the corresponding factor:

| References      | LFS2002009016<br>LFS200200VERZ | LFS2003009016<br>LFS200300VERZ | LFS3003009016<br>LFS300300VERZ | LFS3004509016<br>LFS300450VERZ | LFS4006009016<br>LFS4006009010<br>LFS400600VERZ | LFS6006009016<br>LFS6006009010<br>LFS600600VERZ | LFS6010009016<br>LFS6010009010<br>LFS601000VERZ | LFS6015009016<br>LFS6015009010<br>LFS601500VERZ | LFS6020009016<br>LFS6020009010<br>LFS602000VERZ |
|-----------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---|---|---|---|---|
| Dimensions [mm] | 20 x 20                        | 20 x 30                        | 30 x 30                        | 30 x 45                        | 40 x 60   | 60 x 60   | 60 x 100  | 60 x 150  | 60 x 200  |
| Factor          | 0.20                           | 0.26                           | 0.36                           | 0.42                           | 1.00  | 1.14  | 1.68  | 2.12  | 2.56  |

# **Verification**

| Pagintration No. HACE 00647 V04 04 EN   | Drafting Rules   | PEP-PCR-ed3-201   | 5 04 02  |  |  |  |
|---|--|-------------------|----------|--|--|--|
| Registration N°: HAGE-00647-V01.01-EN   | Supplemented by  | PSR-0003-ed1.1-20 | 15 10 16 |  |  |  |
| Verifier accreditation N°: VH35   | Information and reference documents: www.pep-ecopassport.org |                   |          |  |  |  |
| Date of issue: 9-2021   | Validity period: 5 years                                     |                   |          |  |  |  |
| Independent verification of the declaration and data, in compliance with ISO 14025 : 2010                                       |  |                   |          |  |  |  |
| Internal ● External ○   |  |                   |          |  |  |  |
| The PCR review was conducted by a panel of experts chaired by Philip  | pe Osset (SOLINNE  | EN)               |          |  |  |  |
| PEP are compliant with XP C08-100-1:2014  The elements of the present PEP cannot be compared with elements from another program |  |                   |          |  |  |  |
| Document in compliance with ISO 14025 : 2010 « Environmental labels and declarations. Type III environmental declarations »     |  |                   |          |  |  |  |

The picture has no contractual value.

All numerical values indicated in this document may vary and depend of many factors such as the tolerance related to materials, the usage and environment conditions of the products, installation characteristics ..., real values for a product in a concrete application may therefore change.

The usage time mentioned in this document is an average duration chosen for the need of the calculations. This value cannot be assimilated to the minimum, average or real life time.

The responsibility of the company, issuing this document, can never be engaged if differences would be noticed between the values given by this document and real ones, whatever the causes and/or

consequences would be.