

Conduit Bodies and Fittings

PEP ecopassport®

Carlton Fittings E986J



| | | | |
|--|-----------------------------|--------------------------------------|-------------------------------------|
| Registration number: | ABBG-00724-V02.01-EN | Drafting rules: | PCR-4-ed4-EN-2021 09 06 |
| PEP Owner: | grayson.gardner1@us.abb.com | Supplemented by: | PSR-0003-ed2.1-EN-2023 12 08 |
| Verifier accreditation number: | VH43 | Information and reference documents: | www.pep-ecopassport.org |
| Date of issue: | July-25 | Validity period: | 5 years |
| Independent verification of the declaration and data in compliance with ISO 14025: 2006 | | | |
| Internal: | <input type="checkbox"/> | External: | <input checked="" type="checkbox"/> |
| The PCR review was conducted by a panel of experts chaired by Julie Orgelet (Ddmain) | | | |
| PEPs are compliant with XP C08-100-1:2016 and EN 50693:2019 or NF E38-500 :2022 The components of the present PEP may not be compared with components from any other program. | | | |
| Document complies with ISO 14025:2006 "Environmental labels and declarations. Type III environmental declarations" | | | |
| | | | |



ABB Purpose & Embedding Sustainability

ABB is committed to perform the Life Cycle Assessment (LCA) of most of its products in order to obtain the PEP certification. LCA evaluates the environmental performances and potential environmental impacts throughout a product's life cycle, from raw material to end of life, including manufacturing, transportation, distribution, and use. It helps to identify opportunities to improve the environmental performance of products, establish strategic plans and priorities and create Environmental Product Declarations.

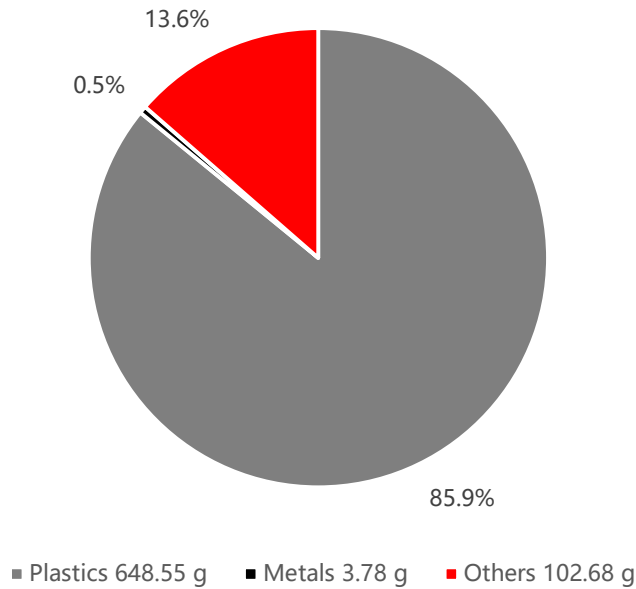


General information

| | |
|----------------------------|---|
| Reference product | E986J PSR product category: Cable Management Solutions PSR product family: Other cable management products Standards: EN 50085-1 and EN 50085-2-1 |
| Description of the product | Catalog description: Conduit bodies and fittings for use with Schedule 40 and 80 conduit Non-metallic elbows and fittings for electrical wires and cable systems. |
| Functional unit | 1 Unit accomodating and protecting the wiring along 1 metre for a Reference Service Life of the product of 20 years. |
| Other products covered | The PL-232 Carlon conduit bodies and fittings types E, C, LR, T, LL covered in this EPD are each offered in 5 size varieties. In total, the Carlon conduit bodies and fittings series covered in this EPD contains 30 unique product catalog numbers. |
| Manufacturing address | Portland, Tennessee |



Constituent Materials



Total weight of reference product and packaging

755.0

g

| Plastics as % of weight | | Metals as % of weight | | Others as % of weight | |
|------------------------------|-------------|---------------------------------|------------|-----------------------|-------------|
| Name and CAS number | Weight% | Name and CAS number | Weight% | Name and CAS number | Weight% |
| PVC Body | 72.8 | Stainless steel (screws) | 0.5 | Cardboard | 6.7 |
| PVC Cover | 12.5 | | | Paper adhesive | 0.2 |
| Foam (on cover) | 0.4 | | | Pallet (wood) | 6.7 |
| LDPE film (packaging) | 0.2 | | | | |
| Plastics Total % | 85.9 | Metals Total % | 0.5 | Others Total % | 13.6 |

RoHS and REACH compatibility and other information about the products materials (i.e. halogen free, recyclability)



Additional Information

| | |
|---|---|
| Manufacturing | Carlton fittings are manufactured via injection moulding for PVC components and foam in place machining for foam components. Screws are cold headed and threaded. |
| Distribution | Distribution scenario has been modelled considering ABB average market for the product. Carlton fittings product family delivery scenario includes truck, train and ship transportaiton scenarios. |
| Installation | The installation of conduit bodies and fittings around the cabling systems is performed manually, no environmental burdens are associated to this phase besides the disposal or recycling of the product packaging. |
| Use | No maintenance operations needed during product lifetime. |
| End of life | Due to lack of data around customer disposal methodology, landfill disposal is the assumed standard scenario |
| Benefits and loads beyond the system boundaries | Not considered or evaluated. |



Environmental Impacts

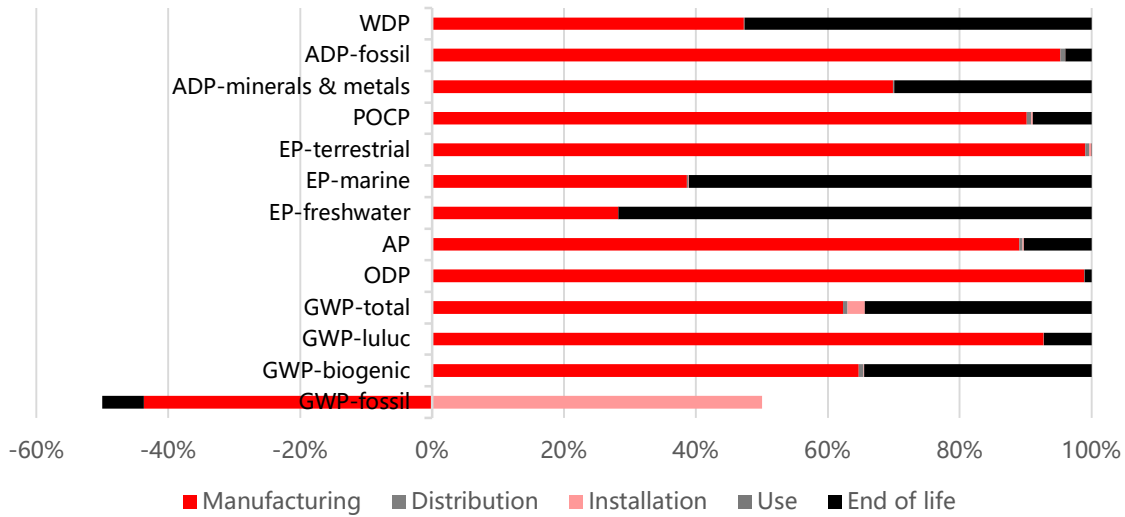
| | |
|----------------------------------|---|
| Reference lifetime | 20 years |
| Product category | Cable Management Solutions |
| Installation elements | No installation materials or energy |
| Use scenario | No energy or water in use scenario |
| Temporal representativeness | 2022 |
| Geographical representativeness | North America |
| Technological representativeness | Represents the PL-232 Carlon fittings and conduit bodies types E, C, LR, T, LL. |
| Software and database used | Simapro 9.6.0.1, ecoinvent 3.10 |

Energy model used

| | |
|---------------|-------------------------|
| Manufacturing | ecoinvent 3.10, US-SERC |
| Installation | ecoinvent 3.10 |
| Use | ecoinvent 3.10 |
| End of life | ecoinvent 3.10 |

Common Base of Mandatory Indicators

% Environmental Impact per Life Cycle Stage of Reference Product



Environmental impact indicators based on functional unit

| Indicator | Unit | Total* | Manufacturing | Distribution | Installation | Use | End of life | Benefits & Loads |
|-----------------------|---------------|----------|---------------|--------------|--------------|----------|-------------|------------------|
| GWP-Total | kg CO2 eq. | 3.99E+00 | 2.49E+00 | 2.82E-02 | 1.06E-01 | 0.00E+00 | 1.37E+00 | 0.00E+00 |
| GWP-Fossil | kg CO2 eq. | 0.00E+00 | -8.79E-02 | 3.66E-06 | 1.01E-01 | 0.00E+00 | -1.27E-02 | 0.00E+00 |
| GWO-Biogenic | kg CO2 eq. | 3.98E+00 | 2.57E+00 | 2.82E-02 | 4.91E-03 | 0.00E+00 | 1.37E+00 | 0.00E+00 |
| GWP-Luluc | kg CO2 eq. | 1.64E-03 | 1.52E-03 | 9.47E-07 | 2.39E-07 | 0.00E+00 | 1.18E-04 | 0.00E+00 |
| ODP | kg CFC-11 eq. | 5.98E-07 | 5.92E-07 | 4.23E-10 | 2.00E-11 | 0.00E+00 | 6.22E-09 | 0.00E+00 |
| AP | H+ eq. | 8.83E-03 | 7.87E-03 | 3.98E-05 | 1.42E-05 | 0.00E+00 | 9.11E-04 | 0.00E+00 |
| EP-Freshwater | kg P eq. | 3.30E-04 | 9.32E-05 | 7.04E-08 | 1.12E-08 | 0.00E+00 | 2.37E-04 | 0.00E+00 |
| EP-Marine | kg N eq. | 4.23E-03 | 1.63E-03 | 8.19E-06 | 6.66E-06 | 0.00E+00 | 2.58E-03 | 0.00E+00 |
| EP-Terrestrial | mol N eq. | 1.74E-02 | 1.72E-02 | 8.99E-05 | 6.94E-05 | 0.00E+00 | 4.19E-06 | 0.00E+00 |
| POCP | kg NMVOC eq. | 9.21E-03 | 8.30E-03 | 6.40E-05 | 1.72E-05 | 0.00E+00 | 8.24E-04 | 0.00E+00 |
| ADP-Minerals & Metals | kg SB eq. | 1.18E-06 | 8.28E-07 | 1.72E-09 | 6.86E-10 | 0.00E+00 | 3.54E-07 | 0.00E+00 |
| ADP-Fossil | MJ | 5.26E+01 | 5.01E+01 | 3.90E-01 | 9.76E-03 | 0.00E+00 | 2.08E+00 | 0.00E+00 |
| WDP | m³ eq. depr. | 2.09E+00 | 9.90E-01 | 3.53E-04 | 1.41E-03 | 0.00E+00 | 1.10E+00 | 0.00E+00 |

Resource use indicators

| Indicator | Unit | Total* | Manufacturing | Distribution | Installation | Use | End of life | Benefits & Loads |
|-----------|------|----------|---------------|--------------|--------------|----------|-------------|------------------|
| PERE | MJ | 5.73E+01 | 5.46E+01 | 4.15E-01 | 1.08E-02 | 0.00E+00 | 2.31E+00 | 0.00E+00 |
| PERM | MJ | 4.82E-01 | 9.64E-01 | 0.00E+00 | -4.82E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| PERT | MJ | 5.78E+01 | 5.55E+01 | 4.15E-01 | -4.71E-01 | 0.00E+00 | 2.31E+00 | 0.00E+00 |
| PENRE | MJ | 5.64E+01 | 5.37E+01 | 4.15E-01 | 1.07E-02 | 0.00E+00 | 2.22E+00 | 0.00E+00 |
| PENRM | MJ | 3.62E+00 | 1.77E+01 | 0.00E+00 | 8.58E-01 | 0.00E+00 | -1.49E+01 | 0.00E+00 |
| PENRT | MJ | 6.00E+01 | 7.14E+01 | 4.15E-01 | 8.69E-01 | 0.00E+00 | -1.27E+01 | 0.00E+00 |

*Total not including Benefits and Loads

Common Base of Mandatory Indicators

Use of secondary materials, water, and energy resources

| Indicator | Unit | Total* | Manufacturing | Distribution | Installation | Use | End of life | Benefits & Loads |
|-----------|----------------|----------|---------------|--------------|--------------|----------|-------------|------------------|
| SM | kg | 2.54E-02 | 2.54E-02 | 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 |
| NRSF | MJ | 1.57E+00 | 1.57E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| FW | m ³ | 1.33E+01 | 1.16E+01 | 4.15E-03 | 2.53E-03 | 0.00E+00 | 1.67E+00 | 0.00E+00 |

Waste category indicators

| Indicator | Unit | Total* | Manufacturing | Distribution | Installation | Use | End of life | Benefits & Loads |
|-----------|------|----------|---------------|--------------|--------------|----------|-------------|------------------|
| HWD | kg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| N-HWD | kg | 8.31E-01 | 1.01E-01 | 0.00E+00 | 7.86E-02 | 0.00E+00 | 6.51E-01 | 0.00E+00 |
| RWD | kg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

Output flow indicators

| Indicator | Unit | Total* | Manufacturing | Distribution | Installation | Use | End of life | Benefits & Loads |
|-----------|------|----------|---------------|--------------|--------------|----------|-------------|------------------|
| CfRu | kg | 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 |
| MfER | kg | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| EE | MJ | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

Other indicators

| Indicator | Unit | Total* | Manufacturing | Distribution | Installation | Use | End of life | Benefits & Loads |
|-----------------------------|---------|----------|---------------|--------------|--------------|----------|-------------|------------------|
| Biogenic Carbon - Product | kg of C | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Biogenic Carbon - Packaging | kg of C | 5.41E-02 | 5.41E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

Optional indicators

| Indicator | Unit | Total* | Manufacturing | Distribution | Installation | Use | End of life | Benefits & Loads |
|-----------|--------------|----------|---------------|--------------|--------------|----------|-------------|------------------|
| Tot PE | MJ | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Efp | Dise inc | 9.02E-08 | 8.03E-08 | 2.22E-09 | 1.11E-10 | 0.00E+00 | 7.50E-09 | 0.00E+00 |
| IrHH | kBq U-235 eq | 1.33E-01 | 1.30E-01 | 2.67E-05 | 5.58E-06 | 0.00E+00 | 3.00E-03 | 0.00E+00 |
| ETX FW | CTUe | 1.86E+02 | 4.23E+01 | 5.41E-02 | 1.44E-01 | 0.00E+00 | 1.44E+02 | 0.00E+00 |
| HTX CE | CTUh | 9.73E-09 | 8.70E-09 | 4.71E-12 | 1.16E-11 | 0.00E+00 | 1.01E-09 | 0.00E+00 |
| HTX N-CE | CTUh | 3.66E-08 | 2.38E-08 | 4.83E-10 | 3.64E-10 | 0.00E+00 | 1.20E-08 | 0.00E+00 |
| IrLS | Pt | 1.55E+01 | 1.49E+01 | 1.56E-03 | 1.20E-03 | 0.00E+00 | 6.14E-01 | 0.00E+00 |

*Total not including Benefits and Loads

Extrapolation Factors

Two identified parameters allow to identify a linear dependency between dependency between impacts and product features. Therefore, linear interpolation has been performed to estimate the relations among products in the same family.

Overview of representative products and parameters

| Product Family | Reference product for which PEP results are reported | Parameter Manufacturing and End-of-Life | Parameter Distribution | Parameter Installation |
|----------------|--|---|------------------------|------------------------|
| E986J | E986J | Product Weight | Total Weight | Packaging Weight |

An overview of selected models and reference nominal parameters is reported below.

List of reference parameters for interpolation

| Product | Product Weight (kg) | Packaging Weight (kg) | Total Weight (kg) |
|------------|---------------------|-----------------------|-------------------|
| E983D-8-HD | 0.0856 | 0.0201 | 0.1057 |
| E983D-CAR | 0.0856 | 0.0201 | 0.1057 |
| E983D-CTN | 0.0856 | 0.0201 | 0.1057 |
| E983E | 0.2099 | 0.0336 | 0.2434 |
| E983E-8-HD | 0.2099 | 0.0336 | 0.2434 |
| E983E-CAR | 0.2099 | 0.0336 | 0.2434 |
| E983E-CTN | 0.2099 | 0.0336 | 0.2434 |
| E983F | 0.2171 | 0.0233 | 0.2404 |
| E983F-6-HD | 0.2171 | 0.0233 | 0.2404 |
| E983FR-CAR | 0.2171 | 0.0233 | 0.2404 |
| E983FRL | 0.2171 | 0.0233 | 0.2404 |
| E983G | 0.4226 | 0.0590 | 0.4817 |
| E983GR-CAR | 0.4226 | 0.0590 | 0.4817 |
| E983H | 0.4420 | 0.0553 | 0.4973 |
| E983H-CAR | 0.4420 | 0.0553 | 0.4973 |
| E983J | 0.7213 | 0.5618 | 1.2831 |
| E983J-CAR | 0.7213 | 0.5618 | 1.2831 |
| E984D-8-HD | 0.0556 | 0.0201 | 0.0757 |
| E984D-CAR | 0.0556 | 0.0201 | 0.0757 |
| E984D-CTN | 0.0556 | 0.0201 | 0.0757 |
| E984E | 0.1499 | 0.0336 | 0.1834 |
| E984E-4-HD | 0.1499 | 0.0336 | 0.1834 |
| E984E-CTN | 0.1499 | 0.0336 | 0.1834 |
| E984F-4-HD | 0.1679 | 0.0254 | 0.1933 |
| E984F-CAR | 0.1679 | 0.0254 | 0.1933 |
| E984G | 0.3826 | 0.0590 | 0.4417 |
| E984G-CAR | 0.3826 | 0.0590 | 0.4417 |

| Product | Product Weight (kg) | Packaging Weight (kg) | Total Weight (kg) |
|-------------|---------------------|-----------------------|-------------------|
| E984H | 0.3720 | 0.0553 | 0.4273 |
| E984H-CAR | 0.3720 | 0.0553 | 0.4273 |
| E984J | 0.6513 | 0.1041 | 0.7554 |
| E984J-CAR | 0.6513 | 0.1041 | 0.7554 |
| E985D-8-HD | 0.0885 | 0.0233 | 0.1119 |
| E985D-CAR | 0.0885 | 0.0233 | 0.1119 |
| E985D-CTN | 0.0885 | 0.0233 | 0.1119 |
| E985E-4-HD | 0.1328 | 0.0233 | 0.1561 |
| E985E-CAR | 0.1328 | 0.0233 | 0.1561 |
| E985E-CTN | 0.1328 | 0.0233 | 0.1561 |
| E985F | 0.1679 | 0.0254 | 0.1933 |
| E985F-4-HD | 0.1679 | 0.0254 | 0.1933 |
| E985F-CAR | 0.1679 | 0.0254 | 0.1933 |
| E985G | 0.3826 | 0.0590 | 0.4417 |
| E985G-CAR | 0.3826 | 0.0590 | 0.4417 |
| E985H | 0.5170 | 0.0816 | 0.5985 |
| E985H-CAR | 0.5170 | 0.0816 | 0.5985 |
| E985J | 0.6372 | 0.5618 | 1.1990 |
| E985J-CAR | 0.6372 | 0.5618 | 1.1990 |
| E986D | 0.0885 | 0.0233 | 0.1119 |
| E986D-20-HD | 0.0885 | 0.0233 | 0.1119 |
| E986D-CTN | 0.0885 | 0.0233 | 0.1119 |
| E986E | 0.1328 | 0.0233 | 0.1561 |
| E986E-12-HD | 0.1328 | 0.0233 | 0.1561 |
| E986E-CAR | 0.1328 | 0.0233 | 0.1561 |
| E986E-CTN | 0.1328 | 0.0233 | 0.1561 |
| E986F | 0.1771 | 0.0233 | 0.2004 |
| E986F-12-HD | 0.1771 | 0.0233 | 0.2004 |
| E986F-CAR | 0.1771 | 0.0233 | 0.2004 |
| E986F-CTN | 0.1771 | 0.0233 | 0.2004 |
| E986FL | 0.1771 | 0.0233 | 0.2004 |
| E986G | 0.3826 | 0.0590 | 0.4417 |
| E986G-6-HD | 0.3826 | 0.0590 | 0.4417 |
| E986GR | 0.3826 | 0.0590 | 0.4417 |
| E986H | 0.5170 | 0.0816 | 0.5985 |
| E986H-6-HD | 0.5170 | 0.0816 | 0.5985 |
| E986HR | 0.5170 | 0.0816 | 0.5985 |
| E986J | 0.6513 | 0.1041 | 0.7554 |
| E986J-4-HD | 0.6513 | 0.1041 | 0.7554 |
| E986J-CTN | 0.6513 | 0.1041 | 0.7554 |
| E986JL | 0.6513 | 0.1041 | 0.7554 |
| E986K | 0.9061 | 0.6987 | 1.6048 |
| E986K-1-HD | 0.9061 | 0.6987 | 1.6048 |

| Product | Product Weight (kg) | Packaging Weight (kg) | Total Weight (kg) |
|------------|---------------------|-----------------------|-------------------|
| E986K-CAR | 0.9061 | 0.6987 | 1.6048 |
| E986KL | 0.9061 | 0.6987 | 1.6048 |
| E986L | 1.3965 | 0.6987 | 2.0952 |
| E986L-4-HD | 1.3965 | 0.6987 | 2.0952 |
| E986M | 1.8869 | 0.4235 | 2.3104 |
| E986N | 2.3773 | 0.4235 | 2.8008 |
| E987D | 0.0885 | 0.0233 | 0.1119 |
| E987D-CTN | 0.0885 | 0.0233 | 0.1119 |
| E987DX-200 | 0.0885 | 0.0233 | 0.1119 |
| E987E-CAR | 0.1328 | 0.0233 | 0.1561 |
| E987E-CTN | 0.1328 | 0.0233 | 0.1561 |
| E987F-CAR | 0.1771 | 0.0233 | 0.2004 |
| E987G | 0.3826 | 0.0590 | 0.4417 |
| E987G-CAR | 0.3826 | 0.0590 | 0.4417 |
| E987H | 0.3524 | 0.0810 | 0.4334 |
| E987H-CAR | 0.3524 | 0.0810 | 0.4334 |
| E987J | 0.6513 | 0.1041 | 0.7554 |
| E987J-CAR | 0.6513 | 0.1041 | 0.7554 |
| E988E | 0.1735 | 0.0252 | 0.1986 |
| E988F | 0.1771 | 0.0233 | 0.2004 |
| E988H | 0.5170 | 0.0816 | 0.5985 |

These extrapolation rules allow to pass from impacts reported in the PEP associated to a reference product to impacts associated to different products in the same family, providing the reference parameter.

For the investigated category the equation linking impacts among products is defined as

$$y = ax + b$$

Where:

y is the generic environmental impact category x is the nominal value of reference parameter

a and b are coefficients computed starting from the assumption about the existence of linear dependency between impacts and product features

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| | Units | Manufacturing | | Distribution | | Installation | | Use | End of life | |
|---|--------------|---------------|-----------|--------------|-----------|--------------|-----------|----------|-------------|-----------|
| | | a | b | a | b | a | b | N/A | a | b |
| Climate change - Total | kg CO2 eq | 3.86E+00 | -6.90E-03 | 3.74E-02 | -4.00E-10 | 1.06E+00 | -2.50E-03 | 0.00E+00 | 2.12E+00 | -1.25E-02 |
| Climate change - Biogenic | kg CO2 eq | -8.28E-02 | -6.57E-02 | 5.00E-06 | 4.00E-14 | 1.01E+00 | -2.80E-03 | 0.00E+00 | -1.25E-02 | 7.50E-03 |
| Climate change - Fossil | kg CO2 eq | 3.94E+00 | 5.85E-02 | 3.74E-02 | 8.00E-11 | 4.19E-02 | 3.00E-04 | 0.00E+00 | 2.12E+00 | -1.25E-02 |
| Climate change - Land use and LU change | kg CO2 eq | 2.30E-03 | 3.00E-04 | 1.00E-06 | -6.00E-15 | 3.00E-06 | -2.00E-08 | 0.00E+00 | -1.25E-02 | -1.00E-06 |
| Ozone Depletion | kg CFC11 eq | 9.00E-07 | -4.00E-09 | 6.00E-10 | 1.00E-18 | 2.00E-10 | -1.00E-12 | 0.00E+00 | 1.00E-08 | -8.00E-11 |
| Acidification Potential | mol H+ eq | 1.19E-02 | 3.00E-04 | 5.00E-05 | 6.00E-13 | 1.00E-04 | -7.00E-07 | 0.00E+00 | 4.00E-04 | 1.40E-03 |
| Eutrophication, freshwater | kg P eq | 1.00E-04 | 5.00E-06 | 9.00E-08 | 5.00E-16 | 1.00E-07 | -7.00E-10 | 0.00E+00 | 1.00E-05 | -3.00E-07 |
| Eutrophication, marine | kg N eq | 2.50E-03 | 1.00E-04 | 1.00E-05 | 6.00E-15 | 7.00E-05 | -3.00E-07 | 0.00E+00 | 4.00E-03 | -7.00E-06 |
| Eutrophication, terrestrial | mol N eq | 2.63E-02 | 9.00E-04 | 1.00E-04 | 5.00E-13 | 7.00E-04 | -3.00E-06 | 0.00E+00 | 6.00E-06 | -5.00E-08 |
| Photochemical ozone formation | kg eq. NMVOC | 1.27E-02 | 3.00E-04 | 1.69E-02 | 3.00E-04 | 2.00E-04 | -7.00E-07 | 0.00E+00 | 1.30E-03 | 1.30E-03 |
| ADP - minerals & metals | kg Sb eq | 1.00E-06 | 2.00E-07 | 2.00E-09 | 3.00E-18 | 7.00E-09 | -5.00E-11 | 0.00E+00 | 5.00E-07 | -5.00E-09 |
| ADP - fossil | MJ | 7.67E+01 | 6.88E-01 | 5.17E-01 | 4.00E-10 | 1.03E-01 | -5.00E-04 | 0.00E+00 | 3.23E+00 | 3.23E+00 |
| Water Deprivation potential | m3 depriv. | 5.11E-01 | 1.10E-02 | 5.00E-04 | 6.00E-12 | 1.57E-02 | -1.00E-04 | 0.00E+00 | 3.23E+00 | -1.45E-02 |
| Emission of fine particles | disease inc. | 1.00E-07 | 8.00E-09 | 3.00E-09 | 1.00E-18 | 1.00E-09 | -4.00E-12 | 0.00E+00 | 1.00E-08 | -7.00E-11 |
| Ionizing radiation, human health | kBq U-235 eq | 2.00E-01 | 2.20E-03 | 4.00E-05 | -6.00E-14 | 6.00E-05 | -5.00E-07 | 0.00E+00 | 4.70E-03 | -4.00E-05 |
| Ecotoxicity (fresh water) | CTUe | 6.14E+01 | 2.49E+00 | 7.16E-02 | -4.00E-12 | 1.64E+00 | -1.42E-02 | 0.00E+00 | 2.23E+02 | -1.90E+00 |
| Human toxicity, carcinogenic effects | CTUh | 9.00E-09 | 3.00E-09 | 6.00E-12 | -9.00E-21 | 1.00E-10 | -7.00E-13 | 0.00E+00 | -1.90E+00 | -1.00E-11 |
| Human toxicity, non-carcinogenic effects | CTUh | 4.00E-08 | 4.00E-09 | 6.00E-10 | 9.00E-19 | 4.00E-09 | -2.00E-11 | 0.00E+00 | 2.00E-08 | -1.00E-10 |
| Impacts related to land use/soil quality | Pt | 1.55E+01 | 7.18E+00 | 2.10E-03 | -2.00E-12 | 1.30E-02 | -8.00E-05 | 0.00E+00 | 9.51E-01 | -7.70E-03 |
| Use of renewable primary energy, excluding renewable energy resources used as raw materials | MJ | 8.35E+01 | -1.76E+00 | 5.49E-01 | -4.00E-04 | 1.10E-01 | -5.00E-04 | 0.00E+00 | 3.30E+00 | -1.25E-02 |
| Use of renewable primary energy resources used as raw materials | MJ | 2.48E+00 | 6.47E-02 | 0.00E+00 | 0.00E+00 | -2.78E+00 | -2.27E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

PEP ecopassport®

| | Units | Manufacturing | | Distribution | | Installation | | Use | End of life | |
|---|---------------------|---------------|-----------|--------------|-----------|--------------|-----------|----------|-------------|-----------|
| Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials) | MJ | 8.35E+01 | -1.76E+00 | 5.49E-01 | -4.00E-04 | 1.10E-01 | -5.00E-04 | 0.00E+00 | 3.30E+00 | -1.25E-02 |
| Use of non-renewable primary energy, excluding non-renewable primary energy resources used as raw materials | MJ | 2.48E+00 | 6.47E-02 | 0.00E+00 | 0.00E+00 | -2.78E+00 | -2.27E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Use of non-renewable primary energy resources as raw materials | MJ | 8.35E+01 | -1.76E+00 | 5.49E-01 | -4.00E-04 | 1.10E-01 | -5.00E-04 | 0.00E+00 | 3.30E+00 | -1.25E-02 |
| Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials) | MJ | 2.48E+00 | 6.47E-02 | 0.00E+00 | 0.00E+00 | -2.78E+00 | -2.27E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Use of secondary materials | MJ | 8.35E+01 | -1.76E+00 | 5.49E-01 | -4.00E-04 | 1.10E-01 | -5.00E-04 | 0.00E+00 | 3.30E+00 | -1.25E-02 |
| Use of renewable secondary fuels | MJ | 2.48E+00 | 6.47E-02 | 0.00E+00 | 0.00E+00 | -2.78E+00 | -2.27E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Use of non-renewable secondary fuels | MJ | 8.35E+01 | -1.76E+00 | 5.49E-01 | -4.00E-04 | 1.10E-01 | -5.00E-04 | 0.00E+00 | 3.30E+00 | -1.25E-02 |
| Net freshwater use | m ³ | 2.48E+00 | 6.47E-02 | 0.00E+00 | 0.00E+00 | -2.78E+00 | -2.27E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Hazardous waste disposed | kg | 8.35E+01 | -1.76E+00 | 5.49E-01 | -4.00E-04 | 1.10E-01 | -5.00E-04 | 0.00E+00 | 3.30E+00 | -1.25E-02 |
| Non-hazardous waste disposed | kg | 2.48E+00 | 6.47E-02 | 0.00E+00 | 0.00E+00 | -2.78E+00 | -2.27E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Radioactive waste disposed | kg | 8.35E+01 | -1.76E+00 | 5.49E-01 | -4.00E-04 | 1.10E-01 | -5.00E-04 | 0.00E+00 | 3.30E+00 | -1.25E-02 |
| Components for re-use | kg | 2.48E+00 | 6.47E-02 | 0.00E+00 | 0.00E+00 | -2.78E+00 | -2.27E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Material for recycling | kg | 8.35E+01 | -1.76E+00 | 5.49E-01 | -4.00E-04 | 1.10E-01 | -5.00E-04 | 0.00E+00 | 3.30E+00 | -1.25E-02 |
| Materials for energy recovery | kg | 2.48E+00 | 6.47E-02 | 0.00E+00 | 0.00E+00 | -2.78E+00 | -2.27E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Exported energy | MJ by energy vector | 8.35E+01 | -1.76E+00 | 5.49E-01 | -4.00E-04 | 1.10E-01 | -5.00E-04 | 0.00E+00 | 3.30E+00 | -1.25E-02 |
| Biogenic carbon content of product | kg of C | 2.48E+00 | 6.47E-02 | 0.00E+00 | 0.00E+00 | -2.78E+00 | -2.27E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| Biogenic carbon content of packaging | kg of C | 8.35E+01 | -1.76E+00 | 5.49E-01 | -4.00E-04 | 1.10E-01 | -5.00E-04 | 0.00E+00 | 3.30E+00 | -1.25E-02 |

Glossary

Environmental impact Indicators

| | |
|----------------|--|
| GWP-total | Global Warming Potential total (Climate change) |
| GWP-fossil | Global Warming Potential fossil |
| GWP-biogenic | Global Warming Potential biogenic |
| GWP-luluc | Global Warming Potential land use and land use change |
| ODP | Depletion potential of the stratospheric ozone layer |
| AP | Acidification potential |
| EP-freshwater | Eutrophication potential - freshwater compartment |
| EP-marine | Eutrophication potential - fraction of nutrients reaching marine end compartment |
| EP-terrestrial | Eutrophication potential - Accumulated Exceedance |
| POCP | Tropospheric ozone creation potential |
| ADP-m&m | Abiotic Depletion for non-fossil resources potential |
| ADP-fossil | Abiotic Depletion for fossil resources potential |
| WDP | Water deprivation potential |

Resource indicators

| | |
|-------|---|
| PENRE | Use of non-renewable primary energy excluding renewable primary energy resources used as raw material |
| PENRM | Use of non-renewable primary energy resources used as raw material |
| PENRT | Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials) |
| PERE | Use of renewable primary energy excluding non-renewable primary energy resources used as raw material. |
| PERM | Use of renewable primary energy resources used as raw material |
| PERT | Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials) |

| Secondary materials, water and energy resources | | Waste category indicators | |
|---|--------------------------------------|---------------------------|---|
| SM | Use of secondary materials | HWD | Hazardous waste disposed |
| RSF | Use of renewable secondary fuels | N-HWD | Non-hazardous waste disposed |
| NRSF | Use of non-renewable secondary fuels | RWD | Radioactive waste disposed |
| FW | Net use of fresh water | | |
| Output flow indicators | | Optional indicators | |
| CfRu | Components for re-use | Tot PE | Total use of primary energy during the life cycle |
| MfR | Materials for recycling | | |
| MfER | Materials for energy recovery | Efp | Emissions of Fine particles |
| EE | Exported Energy | IrHH | Ionizing radiation, human health |
| | | ETX FW | Ecotoxicity, freshwater |
| | | HTX CE | Human toxicity, carcinogenic effects |
| | | HTX N-CE | Human toxicity, non-carcinogenic effects |
| | | IrLS | Impact related to Land use / soil quality |

References

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