# Environmental Profile

This LCA is calculated according to: ISO 14044, ISO 14040 and EN 15804

Ecochain v3.5.64

| | |
|---|---|
| Product: | 3064629 - PE Pipe Cable BK 32 L=6 SRE-P BE S |
| Unit: | 1 piece |
| Manufacturer: | Wavin - SE - Eskilstuna |

Wavin offers double-walled cable conduits in several diameters and in both waterproof and non-waterproof versions. The corrugated outer wall ensures a high ring stiffness, while the smooth inner wall makes the pipes optimal for cable pulling.

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|---|---|
| LCA standard: | EN15804+A2 (2019) |
| Standard database: | Worldwide - Ecoinvent v 3.6 Cut-Off |
| Externally verified: | Yes |
| Issue date: | 20-06-2022 |
| End of validity: | 20-06-2027 |
| Verifier: | Harry van Ewijk - SGS Search |

This LCA was evaluated according to EN15804+A2. It was concluded that the LCA complies with this standard.

The LCA background information and project dossier have been registered in the online Ecochain application in the account Wavin - SE - Eskilstuna (2020). (☑ = module declared, MND = module not declared).

| A1 | A2 | A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ☑ | ☑ | ☑ | MND | MND | MND | MND | MND | MND | MND | MND | MND | MND | ☑ | ☑ | ☑ | ☑ |

**Product stage**

A1 Raw material supply A2 Transport A3 Manufacturing

**Construction process stage**

A4 Transport gate to site
A5 Assembly / Construction installation process

**Use stage**

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
B6 Operational energy use B7 Operational water use

**End-of-Life stage**

C1 De-construction demolition C2 Transport C3 Waste processing
C4 Disposal

**Benefits and loads beyond the system boundaries**

D Reuse- Recovery- Recycling- potential

## Environmental impacts and parameters

**GWP-total** = EF Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF Climate Change - Land use and LU change [kg CO2 eq]; **ODP** = EF Ozone depletion [kg CFC11 eq]; **AP** = EF Acidification [mol H+ eq]; **EP-fw** = EF Eutrophication, freshwater [kg P eq]; **EP-m** = EF Eutrophication, marine [kg N eq]; **EP-T** = EF Eutrophication, terrestrial [mol N eq]; **POCP** = EF Photochemical ozone formation [kg NMVOC eq]; **ADP-mm** = EF Resource use, minerals and metals [kg Sb eq]; **ADP-f** = EF Resource use, fossils [MJ]; **WDP** = EF Water use [m3 depriv.]; **PM** = EF Particulate matter [disease inc.]; **IR** = EF Ionising radiation [kBq U-235 eq]; **ETP-fw** = EF Ecotoxicity, freshwater [CTUe]; **HTP-c** = EF Human toxicity, cancer [CTUh]; **HTP-nc** = EF Human toxicity, non-cancer [CTUh]; **SQP** = EF Land use [Pt]; **PERE** = Use of renewable primary energy excluding renewable primary energy resources used as raw materials [MJ]; **PERM** = Use of renewable primary energy resources used as raw materials [MJ]; **PERT** = Total use of renewable primary energy resources [MJ]; **PENRE** = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials [MJ]; **PENRM** = Use of non-renewable primary energy resources used as raw materials [MJ]; **PENRT** = Total use of non-renewable primary energy resources [MJ]; **PET** = Total energy [MJ]; **SM** = Use of secondary material [kg]; **RSF** = Use of renewable secondary fuels [MJ]; **NRSF** = Use of non-renewable secondary fuels [MJ]; **FW** = Use of net fresh water [m3]; **HWD** = Hazardous waste disposed [kg]; **NHWD** = Non-hazardous waste disposed [kg]; **RWD** = Radioactive waste disposed [kg]; **CRU** = Components for re-use [kg]; **MFR** = Materials for recycling [kg]; **MER** = Materials for energy recovery [kg]; **EE** = Exported energy [MJ]; **EET** = Exported energy thermic [MJ]; **EEE** = Exported energy electric [MJ]

## Statement of Confidentiality

# Results

| Environmental impact | Unit | A1 | A2 | A3 | A1-A3 | C2 | C3 | C4 | D | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| GWP-total | kg CO2 eq | 3.46E+0 | 2.77E-1 | 1.15E-1 | 3.85E+0 | 4.48E-2 | 1.52E+0 | 2.48E-2 | -2.26E+0 | 3.17E+0 |
| GWP-f | kg CO2 eq | 3.50E+0 | 2.77E-1 | 8.36E-2 | 3.86E+0 | 4.48E-2 | 1.46E+0 | 2.48E-2 | -2.26E+0 | 3.13E+0 |
| GWP-b | kg CO2 eq | -4.07E-2 | -1.82E-5 | 2.20E-2 | -1.87E-2 | 2.72E-5 | 5.71E-2 | 1.86E-5 | -8.34E-3 | 3.01E-2 |
| GWP-luluc | kg CO2 eq | 1.16E-3 | 1.64E-4 | 9.72E-3 | 1.10E-2 | 1.58E-5 | 2.52E-4 | 3.61E-7 | -5.26E-4 | 1.08E-2 |
| ODP | kg CFC11 eq | 9.71E-8 | 5.73E-8 | 9.47E-9 | 1.64E-7 | 1.03E-8 | 3.30E-8 | 5.30E-10 | -1.08E-7 | 9.97E-8 |
| AP | mol H+ eq | 1.29E-2 | 6.71E-3 | 7.08E-4 | 2.04E-2 | 2.55E-4 | 1.39E-3 | 1.27E-5 | -6.30E-3 | 1.57E-2 |
| EP-fw | kg P eq | 6.29E-5 | 1.65E-6 | 1.54E-6 | 6.61E-5 | 3.68E-7 | 7.29E-6 | 1.65E-8 | -2.87E-5 | 4.52E-5 |
| EP-m | kg N eq | 2.21E-3 | 1.70E-3 | 2.10E-4 | 4.12E-3 | 9.13E-5 | 4.04E-4 | 8.89E-6 | -1.16E-3 | 3.47E-3 |
| EP-T | mol N eq | 2.50E-2 | 1.89E-2 | 2.30E-3 | 4.62E-2 | 1.01E-3 | 4.44E-3 | 5.13E-5 | -1.29E-2 | 3.88E-2 |
| POCP | kg NMVOC eq | 1.17E-2 | 4.95E-3 | 6.40E-4 | 1.73E-2 | 2.87E-4 | 1.40E-3 | 2.01E-5 | -6.00E-3 | 1.30E-2 |
| ADP-mm | kg Sb eq | 4.83E-5 | 3.60E-6 | 2.52E-6 | 5.44E-5 | 1.16E-6 | 5.49E-6 | 1.27E-8 | -1.46E-5 | 4.65E-5 |
| ADP-f | MJ | 1.21E+2 | 3.74E+0 | 8.31E-1 | 1.25E+2 | 6.87E-1 | 4.38E+0 | 3.87E-2 | -6.73E+1 | 6.29E+1 |
| WDP | m3 depriv. | 2.77E+0 | 8.20E-3 | 5.35E-1 | 3.31E+0 | 2.11E-3 | 8.58E-2 | 1.94E-4 | -1.31E+0 | 2.09E+0 |
| PM | disease inc. | 1.10E-7 | 1.36E-8 | 1.20E-8 | 1.35E-7 | 4.04E-9 | 2.28E-8 | 2.66E-10 | -5.08E-8 | 1.11E-7 |
| IR | kBq U-235 eq | 8.43E-2 | 1.59E-2 | 2.47E-3 | 1.03E-1 | 3.00E-3 | 1.32E-2 | 1.80E-4 | -4.06E-2 | 7.85E-2 |
| ETP-fw | CTUe | 2.25E+1 | 2.73E+0 | 2.32E+0 | 2.75E+1 | 5.58E-1 | 4.99E+0 | 3.41E-2 | -1.04E+1 | 2.27E+1 |
| HTP-c | CTUh | 1.28E-9 | 1.46E-10 | 9.15E-11 | 1.52E-9 | 1.99E-11 | 6.00E-10 | 9.52E-13 | -4.85E-10 | 1.65E-9 |
| HTP-nc | CTUh | 2.58E-8 | 2.52E-9 | 2.49E-9 | 3.09E-8 | 6.65E-10 | 7.50E-9 | 2.17E-11 | -8.05E-9 | 3.10E-8 |
| SQP | Pt | 9.82E+0 | 1.46E+0 | 1.09E-1 | 1.14E+1 | 5.88E-1 | 3.51E+0 | 9.92E-2 | -6.27E+0 | 9.30E+0 |
| Resource use | Unit | A1 | A2 | A3 | A1-A3 | C2 | C3 | C4 | D | Total |
| PERE | MJ | 2.83E+0 | 3.27E-2 | 5.24E+0 | 8.10E+0 | 9.86E-3 | 2.16E-1 | 1.52E-3 | -1.59E+0 | 6.74E+0 |
| PERM | MJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PERT | MJ | 2.83E+0 | 3.27E-2 | 5.24E+0 | 8.10E+0 | 9.86E-3 | 2.16E-1 | 1.52E-3 | -1.59E+0 | 6.74E+0 |
| PENRE | MJ | 1.29E+2 | 3.97E+0 | 8.82E-1 | 1.34E+2 | 7.30E-1 | 4.67E+0 | 4.10E-2 | -7.26E+1 | 6.70E+1 |
| PENRM | MJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PENRT | MJ | 1.29E+2 | 3.97E+0 | 8.82E-1 | 1.34E+2 | 7.30E-1 | 4.67E+0 | 4.10E-2 | -7.26E+1 | 6.70E+1 |
| PET | MJ | 1.32E+2 | 4.00E+0 | 6.12E+0 | 1.42E+2 | 7.40E-1 | 4.89E+0 | 4.26E-2 | -7.42E+1 | 7.38E+1 |
| SM | kg | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| RSF | MJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NRSF | MJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FW | m3 | 4.26E-2 | 2.85E-4 | 1.27E-2 | 5.56E-2 | 7.78E-5 | 2.53E-3 | 4.77E-5 | -2.00E-2 | 3.82E-2 |

| Output flows and waste categories | Unit | A1 | A2 | A3 | A1-A3 | C2 | C3 | C4 | D | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| HWD | kg | 1.99E-5 | 5.52E-6 | 1.27E-6 | 2.67E-5 | 1.76E-6 | 7.16E-6 | 4.66E-8 | -2.15E-5 | 1.42E-5 |
| NHWD | kg | 1.50E-1 | 8.79E-2 | 3.88E-3 | 2.42E-1 | 4.26E-2 | 2.16E-1 | 1.70E-1 | -5.82E-2 | 6.12E-1 |
| RWD | kg | 7.56E-5 | 2.55E-5 | 3.52E-6 | 1.05E-4 | 4.67E-6 | 1.68E-5 | 2.53E-7 | -3.79E-5 | 8.85E-5 |
| CRU | kg | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MFR | kg | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MER | kg | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| EE | MJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| EET | MJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| EEE | MJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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