

Environmental Profile

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

Ecochain v3.5.64



Product: 3064056 - PE80 Pipe BK/BR 90 PN8 SDR17 L=100
 Unit: 1 piece
 Manufacturer: Wavin - SE - Eskilstuna

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



For the safe transport of waste water from, for example, the household-property to the main pipe. The PE80 material is slightly more flexible than PE100 and is therefore excellent for rolled products.

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]

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Results

| Environmental impact | Unit | A1 | A2 | A3 | A1-A3 | C2 | C3 | C4 | D | Total |
|----------------------|--------------|----------|---------|---------|----------|---------|---------|----------|----------|---------|
| GWP-total | kg CO2 eq | 2.90E+2 | 2.73E+1 | 1.03E+1 | 3.27E+2 | 3.83E+0 | 1.31E+2 | 2.12E+0 | -1.92E+2 | 2.71E+2 |
| GWP-f | kg CO2 eq | 2.94E+2 | 2.73E+1 | 7.45E+0 | 3.29E+2 | 3.82E+0 | 1.25E+2 | 2.12E+0 | -1.92E+2 | 2.68E+2 |
| GWP-b | kg CO2 eq | -4.20E+0 | 1.24E-2 | 1.96E+0 | -2.23E+0 | 2.32E-3 | 5.48E+0 | 1.59E-3 | -7.25E-1 | 2.53E+0 |
| GWP-luluc | kg CO2 eq | 9.27E-2 | 1.01E-2 | 8.66E-1 | 9.69E-1 | 1.35E-3 | 2.15E-2 | 3.04E-5 | -4.43E-2 | 9.48E-1 |
| ODP | kg CFC11 eq | 1.61E-5 | 6.01E-6 | 8.44E-7 | 2.30E-5 | 8.81E-7 | 2.80E-6 | 4.52E-8 | -9.23E-6 | 1.75E-5 |
| AP | mol H+ eq | 1.11E+0 | 1.66E-1 | 6.31E-2 | 1.34E+0 | 2.18E-2 | 1.18E-1 | 1.08E-3 | -5.32E-1 | 9.47E-1 |
| EP-fw | kg P eq | 4.94E-3 | 2.73E-4 | 1.38E-4 | 5.35E-3 | 3.15E-5 | 6.20E-4 | 1.40E-6 | -2.39E-3 | 3.61E-3 |
| EP-m | kg N eq | 1.86E-1 | 5.75E-2 | 1.87E-2 | 2.62E-1 | 7.79E-3 | 3.45E-2 | 7.63E-4 | -9.76E-2 | 2.08E-1 |
| EP-T | mol N eq | 2.10E+0 | 6.34E-1 | 2.05E-1 | 2.94E+0 | 8.59E-2 | 3.79E-1 | 4.38E-3 | -1.09E+0 | 2.32E+0 |
| POCP | kg NMVOC eq | 9.84E-1 | 1.80E-1 | 5.70E-2 | 1.22E+0 | 2.46E-2 | 1.20E-1 | 1.72E-3 | -5.04E-1 | 8.63E-1 |
| ADP-mm | kg Sb eq | 3.69E-3 | 6.85E-4 | 2.24E-4 | 4.60E-3 | 9.89E-5 | 4.66E-4 | 1.08E-6 | -1.24E-3 | 3.93E-3 |
| ADP-f | MJ | 1.04E+4 | 4.10E+2 | 7.40E+1 | 1.09E+4 | 5.87E+1 | 3.73E+2 | 3.30E+0 | -5.74E+3 | 5.55E+3 |
| WDP | m3 depriv. | 2.24E+2 | 1.46E+0 | 4.77E+1 | 2.73E+2 | 1.80E-1 | 7.33E+0 | 1.51E-2 | -1.11E+2 | 1.69E+2 |
| PM | disease inc. | 1.08E-5 | 2.43E-6 | 1.07E-6 | 1.43E-5 | 3.45E-7 | 1.94E-6 | 2.27E-8 | -4.23E-6 | 1.24E-5 |
| IR | kBq U-235 eq | 9.03E+0 | 1.72E+0 | 2.20E-1 | 1.10E+1 | 2.57E-1 | 1.13E+0 | 1.54E-2 | -3.47E+0 | 8.90E+0 |
| ETP-fw | CTUe | 1.96E+3 | 3.65E+2 | 2.06E+2 | 2.53E+3 | 4.77E+1 | 4.24E+2 | 2.91E+0 | -8.56E+2 | 2.14E+3 |
| HTP-c | CTUh | 8.44E-8 | 1.19E-8 | 8.15E-9 | 1.04E-7 | 1.70E-9 | 5.06E-8 | 8.01E-11 | -4.00E-8 | 1.17E-7 |
| HTP-nc | CTUh | 1.91E-6 | 3.98E-7 | 2.22E-7 | 2.53E-6 | 5.68E-8 | 6.37E-7 | 1.85E-9 | -8.96E-7 | 2.33E-6 |
| SQP | Pt | 9.64E+2 | 3.53E+2 | 9.74E+0 | 1.33E+3 | 5.02E+1 | 2.98E+2 | 8.47E+0 | -2.91E+2 | 1.39E+3 |
| Resource use | Unit | A1 | A2 | A3 | A1-A3 | C2 | C3 | C4 | D | Total |
| PERE | MJ | 2.46E+2 | 5.11E+0 | 4.67E+2 | 7.18E+2 | 8.42E-1 | 1.84E+1 | 1.31E-1 | -1.05E+2 | 6.32E+2 |
| PERM | MJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PERT | MJ | 2.46E+2 | 5.11E+0 | 4.67E+2 | 7.18E+2 | 8.42E-1 | 1.84E+1 | 1.31E-1 | -1.05E+2 | 6.32E+2 |
| PENRE | MJ | 1.11E+4 | 4.36E+2 | 7.86E+1 | 1.16E+4 | 6.23E+1 | 3.98E+2 | 3.50E+0 | -6.19E+3 | 5.91E+3 |
| PENRM | MJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PENRT | MJ | 1.11E+4 | 4.36E+2 | 7.86E+1 | 1.16E+4 | 6.23E+1 | 3.98E+2 | 3.50E+0 | -6.19E+3 | 5.91E+3 |
| PET | MJ | 1.14E+4 | 4.41E+2 | 5.46E+2 | 1.24E+4 | 6.32E+1 | 4.16E+2 | 3.63E+0 | -6.30E+3 | 6.54E+3 |
| 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 | 3.40E+0 | 4.97E-2 | 1.13E+0 | 4.59E+0 | 6.64E-3 | 2.16E-1 | 4.08E-3 | -1.70E+0 | 3.11E+0 |

| Output flows and waste categories | Unit | A1 | A2 | A3 | A1-A3 | C2 | C3 | C4 | D | Total |
|-----------------------------------|------|---------|---------|---------|---------|---------|---------|---------|----------|---------|
| HWD | kg | 1.62E-3 | 1.03E-3 | 1.13E-4 | 2.77E-3 | 1.50E-4 | 6.08E-4 | 3.96E-6 | -1.70E-3 | 1.83E-3 |
| NHWD | kg | 1.14E+1 | 2.58E+1 | 3.46E-1 | 3.76E+1 | 3.64E+0 | 1.84E+1 | 1.45E+1 | -4.72E+0 | 6.95E+1 |
| RWD | kg | 9.84E-3 | 2.70E-3 | 3.13E-4 | 1.28E-2 | 3.99E-4 | 1.43E-3 | 2.16E-5 | -3.22E-3 | 1.15E-2 |
| 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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