

Environmental Profile

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

Ecochain v3.5.64



Product: 3064052 - PE80 Pipe BK/BL 75 SDR11 L= 50
 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 | 1.45E+2 | 1.38E+1 | 5.19E+0 | 1.64E+2 | 1.93E+0 | 6.77E+1 | 1.07E+0 | -9.72E+1 | 1.38E+2 |
| GWP-f | kg CO2 eq | 1.49E+2 | 1.38E+1 | 3.76E+0 | 1.66E+2 | 1.93E+0 | 6.34E+1 | 1.07E+0 | -9.68E+1 | 1.36E+2 |
| GWP-b | kg CO2 eq | -3.65E+0 | 6.25E-3 | 9.89E-1 | -2.65E+0 | 1.17E-3 | 4.29E+0 | 8.02E-4 | -3.66E-1 | 1.27E+0 |
| GWP-luluc | kg CO2 eq | 4.80E-2 | 5.08E-3 | 4.37E-1 | 4.90E-1 | 6.83E-4 | 1.09E-2 | 1.53E-5 | -2.26E-2 | 4.79E-1 |
| ODP | kg CFC11 eq | 8.19E-6 | 3.03E-6 | 4.26E-7 | 1.16E-5 | 4.44E-7 | 1.42E-6 | 2.28E-8 | -4.68E-6 | 8.85E-6 |
| AP | mol H+ eq | 5.63E-1 | 8.38E-2 | 3.18E-2 | 6.79E-1 | 1.10E-2 | 5.98E-2 | 5.44E-4 | -2.69E-1 | 4.81E-1 |
| EP-fw | kg P eq | 2.52E-3 | 1.38E-4 | 6.94E-5 | 2.73E-3 | 1.59E-5 | 3.13E-4 | 7.06E-7 | -1.21E-3 | 1.85E-3 |
| EP-m | kg N eq | 9.46E-2 | 2.90E-2 | 9.44E-3 | 1.33E-1 | 3.93E-3 | 1.75E-2 | 3.85E-4 | -4.95E-2 | 1.05E-1 |
| EP-T | mol N eq | 1.07E+0 | 3.20E-1 | 1.04E-1 | 1.49E+0 | 4.33E-2 | 1.92E-1 | 2.21E-3 | -5.53E-1 | 1.18E+0 |
| POCP | kg NMVOC eq | 5.00E-1 | 9.10E-2 | 2.88E-2 | 6.19E-1 | 1.24E-2 | 6.07E-2 | 8.66E-4 | -2.55E-1 | 4.38E-1 |
| ADP-mm | kg Sb eq | 1.87E-3 | 3.46E-4 | 1.13E-4 | 2.33E-3 | 4.99E-5 | 2.35E-4 | 5.46E-7 | -6.25E-4 | 1.99E-3 |
| ADP-f | MJ | 5.25E+3 | 2.07E+2 | 3.73E+1 | 5.49E+3 | 2.96E+1 | 1.88E+2 | 1.66E+0 | -2.90E+3 | 2.81E+3 |
| WDP | m3 depriv. | 1.13E+2 | 7.37E-1 | 2.41E+1 | 1.38E+2 | 9.09E-2 | 3.70E+0 | 7.62E-3 | -5.62E+1 | 8.56E+1 |
| PM | disease inc. | 5.54E-6 | 1.23E-6 | 5.37E-7 | 7.31E-6 | 1.74E-7 | 9.81E-7 | 1.14E-8 | -2.15E-6 | 6.33E-6 |
| IR | kBq U-235 eq | 4.59E+0 | 8.68E-1 | 1.11E-1 | 5.56E+0 | 1.29E-1 | 5.68E-1 | 7.76E-3 | -1.75E+0 | 4.52E+0 |
| ETP-fw | CTUe | 9.99E+2 | 1.84E+2 | 1.04E+2 | 1.29E+3 | 2.40E+1 | 2.14E+2 | 1.47E+0 | -4.39E+2 | 1.09E+3 |
| HTP-c | CTUh | 4.33E-8 | 6.01E-9 | 4.11E-9 | 5.34E-8 | 8.56E-10 | 2.57E-8 | 4.04E-11 | -2.03E-8 | 5.97E-8 |
| HTP-nc | CTUh | 9.74E-7 | 2.01E-7 | 1.12E-7 | 1.29E-6 | 2.87E-8 | 3.22E-7 | 9.33E-10 | -4.55E-7 | 1.18E-6 |
| SQP | Pt | 6.26E+2 | 1.78E+2 | 4.91E+0 | 8.10E+2 | 2.53E+1 | 1.51E+2 | 4.27E+0 | -1.77E+2 | 8.13E+2 |
| Resource use | Unit | A1 | A2 | A3 | A1-A3 | C2 | C3 | C4 | D | Total |
| PERE | MJ | 1.45E+2 | 2.58E+0 | 2.36E+2 | 3.83E+2 | 4.25E-1 | 9.29E+0 | 6.59E-2 | -5.89E+1 | 3.34E+2 |
| PERM | MJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PERT | MJ | 1.45E+2 | 2.58E+0 | 2.36E+2 | 3.83E+2 | 4.25E-1 | 9.29E+0 | 6.59E-2 | -5.89E+1 | 3.34E+2 |
| PENRE | MJ | 5.63E+3 | 2.20E+2 | 3.97E+1 | 5.89E+3 | 3.14E+1 | 2.01E+2 | 1.77E+0 | -3.13E+3 | 2.99E+3 |
| PENRM | MJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PENRT | MJ | 5.63E+3 | 2.20E+2 | 3.97E+1 | 5.89E+3 | 3.14E+1 | 2.01E+2 | 1.77E+0 | -3.13E+3 | 2.99E+3 |
| PET | MJ | 5.77E+3 | 2.22E+2 | 2.75E+2 | 6.27E+3 | 3.19E+1 | 2.10E+2 | 1.83E+0 | -3.19E+3 | 3.33E+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 | 1.73E+0 | 2.51E-2 | 5.72E-1 | 2.32E+0 | 3.35E-3 | 1.09E-1 | 2.06E-3 | -8.60E-1 | 1.58E+0 |

| Output flows and waste categories | Unit | A1 | A2 | A3 | A1-A3 | C2 | C3 | C4 | D | Total |
|-----------------------------------|------|---------|---------|---------|---------|---------|---------|---------|----------|---------|
| HWD | kg | 8.34E-4 | 5.22E-4 | 5.69E-5 | 1.41E-3 | 7.57E-5 | 3.07E-4 | 2.00E-6 | -8.60E-4 | 9.38E-4 |
| NHWD | kg | 5.87E+0 | 1.30E+1 | 1.74E-1 | 1.91E+1 | 1.84E+0 | 9.35E+0 | 7.34E+0 | -2.40E+0 | 3.52E+1 |
| RWD | kg | 4.99E-3 | 1.36E-3 | 1.58E-4 | 6.51E-3 | 2.01E-4 | 7.20E-4 | 1.09E-5 | -1.63E-3 | 5.81E-3 |
| 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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