

Environmental Profile

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

Ecochain v3.5.80



Product: 3025481 - PVC TAD Pipe GY 50 L=4 PL
 Unit: 1 Piece
 Manufacturer: Wavin - FR - Varennes

LCA standard: EN15804+A2 (2019)
 Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
 Externally verified: Yes
 Issue date: 24-11-2022
 End of validity: 24-11-2027
 Verifier: Martijn van Hövell - SGS Search



The Wavin range of PVC pipes and fittings to be glued covers all the usual diameters and allows you to create networks that are 100% compatible, homogeneous and meet the requirements of the French market.

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 - FR - Varennes (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 | ☑ | ☑ | ☑ | ☑ |

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 EN15804+A2 Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF EN15804+A2 Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF EN15804+A2 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 | 2.61E+0 | 9.98E-2 | 1.75E-1 | 2.89E+0 | 4.77E-2 | 1.62E+0 | 1.27E-2 | -1.60E+0 | 2.97E+0 |
| GWP-f | kg CO2 eq | 3.02E+0 | 9.97E-2 | 1.38E-1 | 3.26E+0 | 4.77E-2 | 1.17E+0 | 1.27E-2 | -1.58E+0 | 2.91E+0 |
| GWP-b | kg CO2 eq | -4.29E-1 | 6.05E-5 | 3.70E-2 | -3.92E-1 | 2.89E-5 | 4.46E-1 | 1.64E-5 | -1.10E-2 | 4.32E-2 |
| GWP-luluc | kg CO2 eq | 2.50E-2 | 3.53E-5 | 1.31E-4 | 2.51E-2 | 1.69E-5 | 5.41E-4 | 3.48E-7 | -1.07E-3 | 2.46E-2 |
| ODP | kg CFC11 eq | 1.59E-6 | 2.30E-8 | 1.80E-8 | 1.63E-6 | 1.10E-8 | 1.43E-7 | 5.32E-10 | -7.81E-7 | 1.01E-6 |
| AP | mol H+ eq | 1.45E-2 | 5.68E-4 | 7.78E-4 | 1.59E-2 | 2.72E-4 | 2.55E-3 | 1.26E-5 | -6.13E-3 | 1.26E-2 |
| EP-fw | kg P eq | 1.38E-4 | 8.20E-7 | 3.29E-6 | 1.42E-4 | 3.92E-7 | 1.79E-5 | 1.57E-8 | -5.83E-5 | 1.02E-4 |
| EP-m | kg N eq | 2.59E-3 | 2.03E-4 | 2.28E-4 | 3.02E-3 | 9.72E-5 | 6.30E-4 | 7.76E-6 | -1.09E-3 | 2.67E-3 |
| EP-T | mol N eq | 2.69E-2 | 2.24E-3 | 2.74E-3 | 3.19E-2 | 1.07E-3 | 6.94E-3 | 5.07E-5 | -1.19E-2 | 2.81E-2 |
| POCP | kg NMVOC eq | 9.04E-3 | 6.40E-4 | 6.75E-4 | 1.04E-2 | 3.06E-4 | 2.09E-3 | 1.71E-5 | -3.99E-3 | 8.78E-3 |
| ADP-mm | kg Sb eq | 1.03E-3 | 2.58E-6 | 2.68E-6 | 1.04E-3 | 1.23E-6 | 1.00E-5 | 1.25E-8 | -3.18E-5 | 1.02E-3 |
| ADP-f | MJ | 7.51E+1 | 1.53E+0 | 1.93E+0 | 7.85E+1 | 7.32E-1 | 7.04E+0 | 3.84E-2 | -3.84E+1 | 4.79E+1 |
| WDP | m3 depriv. | 4.85E+0 | 4.70E-3 | 3.89E+0 | 8.74E+0 | 2.25E-3 | 2.65E-1 | 2.09E-4 | -2.25E+0 | 6.76E+0 |
| PM | disease inc. | 1.16E-7 | 9.00E-9 | 1.13E-8 | 1.36E-7 | 4.30E-9 | 3.25E-8 | 2.63E-10 | -4.10E-8 | 1.32E-7 |
| IR | kBq U-235 eq | 1.64E-1 | 6.69E-3 | 5.53E-3 | 1.76E-1 | 3.20E-3 | 2.44E-2 | 1.76E-4 | -7.32E-2 | 1.31E-1 |
| ETP-fw | CTUe | 5.97E+1 | 1.24E+0 | 1.82E+0 | 6.28E+1 | 5.94E-1 | 4.99E+1 | 5.47E-1 | -2.37E+1 | 9.02E+1 |
| HTP-c | CTUh | 2.31E-9 | 4.42E-11 | 1.41E-10 | 2.50E-9 | 2.11E-11 | 7.85E-10 | 9.75E-13 | -8.49E-10 | 2.45E-9 |
| HTP-nc | CTUh | 7.51E-8 | 1.48E-9 | 3.64E-9 | 8.02E-8 | 7.08E-10 | 1.81E-8 | 1.06E-10 | -2.92E-8 | 7.00E-8 |
| SQP | Pt | 5.07E+1 | 1.31E+0 | 9.08E+0 | 6.11E+1 | 6.26E-1 | 4.47E+0 | 9.70E-2 | -1.24E+1 | 5.39E+1 |
| Resource use | Unit | A1 | A2 | A3 | A1-A3 | C2 | C3 | C4 | D | Total |
| PERE | MJ | 9.79E+0 | 2.20E-2 | 2.31E+0 | 1.21E+1 | 1.05E-2 | 4.94E-1 | 1.36E-3 | -3.33E+0 | 9.30E+0 |
| PERM | MJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PERT | MJ | 9.79E+0 | 2.20E-2 | 2.31E+0 | 1.21E+1 | 1.05E-2 | 4.94E-1 | 1.36E-3 | -3.33E+0 | 9.30E+0 |
| PENRE | MJ | 8.06E+1 | 1.62E+0 | 2.08E+0 | 8.43E+1 | 7.77E-1 | 7.49E+0 | 4.08E-2 | -4.14E+1 | 5.12E+1 |
| PENRM | MJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PENRT | MJ | 8.06E+1 | 1.62E+0 | 2.08E+0 | 8.43E+1 | 7.77E-1 | 7.49E+0 | 4.08E-2 | -4.14E+1 | 5.12E+1 |
| PET | MJ | 9.04E+1 | 1.65E+0 | 4.40E+0 | 9.64E+1 | 7.87E-1 | 7.98E+0 | 4.21E-2 | -4.47E+1 | 6.05E+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 | 5.38E-2 | 1.73E-4 | 9.11E-2 | 1.45E-1 | 8.28E-5 | 7.29E-3 | 4.70E-5 | -2.37E-2 | 1.29E-1 |

| Output flows and waste categories | Unit | A1 | A2 | A3 | A1-A3 | C2 | C3 | C4 | D | Total |
|-----------------------------------|------|---------|---------|---------|---------|---------|---------|---------|----------|---------|
| HWD | kg | 1.62E-4 | 3.91E-6 | 2.85E-6 | 1.69E-4 | 1.87E-6 | 1.13E-5 | 4.61E-8 | -3.19E-5 | 1.50E-4 |
| NHWD | kg | 3.24E-1 | 9.48E-2 | 2.09E-2 | 4.40E-1 | 4.54E-2 | 2.69E-1 | 1.81E-1 | -1.23E-1 | 8.13E-1 |
| RWD | kg | 1.44E-4 | 1.04E-5 | 5.76E-6 | 1.60E-4 | 4.98E-6 | 2.65E-5 | 2.52E-7 | -6.48E-5 | 1.27E-4 |
| 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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