

Environmental Profile

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

Ecochain v3.5.80



Product: 3025919 - Gutter Coupler LGY 80
 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]

Statement of Confidentiality

This document and supporting material contain confidential and proprietary business information of Wavin - FR - Varennes. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - FR - Varennes.

Results

| Environmental impact | Unit | A1 | A2 | A3 | A1-A3 | C2 | C3 | C4 | D | Total |
|----------------------|--------------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| GWP-total | kg CO2 eq | 1.80E-1 | 6.59E-3 | 7.59E-3 | 1.94E-1 | 2.29E-3 | 1.30E-1 | 7.23E-4 | -8.42E-2 | 2.42E-1 |
| GWP-f | kg CO2 eq | 2.23E-1 | 6.58E-3 | 5.93E-3 | 2.35E-1 | 2.29E-3 | 6.75E-2 | 7.23E-4 | -1.21E-1 | 1.85E-1 |
| GWP-b | kg CO2 eq | -4.35E-2 | 4.00E-6 | 1.66E-3 | -4.18E-2 | 1.39E-6 | 6.21E-2 | 8.81E-7 | 3.70E-2 | 5.73E-2 |
| GWP-luluc | kg CO2 eq | 4.01E-4 | 2.33E-6 | 6.27E-6 | 4.10E-4 | 8.11E-7 | 2.83E-5 | 2.01E-8 | -3.45E-4 | 9.37E-5 |
| ODP | kg CFC11 eq | 9.57E-8 | 1.52E-9 | 7.79E-10 | 9.80E-8 | 5.28E-10 | 7.88E-9 | 2.69E-11 | -5.11E-8 | 5.53E-8 |
| AP | mol H+ eq | 1.37E-3 | 3.75E-5 | 3.61E-5 | 1.45E-3 | 1.30E-5 | 1.46E-4 | 6.58E-7 | -5.75E-4 | 1.03E-3 |
| EP-fw | kg P eq | 1.15E-5 | 5.42E-8 | 1.42E-7 | 1.17E-5 | 1.88E-8 | 9.47E-7 | 8.89E-10 | -7.03E-6 | 5.64E-6 |
| EP-m | kg N eq | 2.34E-4 | 1.34E-5 | 1.04E-5 | 2.58E-4 | 4.67E-6 | 3.80E-5 | 3.91E-7 | -1.14E-4 | 1.88E-4 |
| EP-T | mol N eq | 2.47E-3 | 1.48E-4 | 1.28E-4 | 2.75E-3 | 5.14E-5 | 4.18E-4 | 2.61E-6 | -1.26E-3 | 1.96E-3 |
| POCP | kg NMVOC eq | 7.53E-4 | 4.23E-5 | 3.08E-5 | 8.26E-4 | 1.47E-5 | 1.25E-4 | 8.99E-7 | -3.91E-4 | 5.75E-4 |
| ADP-mm | kg Sb eq | 2.46E-4 | 1.70E-7 | 1.31E-7 | 2.46E-4 | 5.92E-8 | 5.80E-7 | 6.70E-10 | -2.29E-6 | 2.45E-4 |
| ADP-f | MJ | 4.94E+0 | 1.01E-1 | 8.23E-2 | 5.13E+0 | 3.52E-2 | 3.84E-1 | 1.97E-3 | -2.74E+0 | 2.80E+0 |
| WDP | m3 depriv. | 3.09E-1 | 3.10E-4 | 1.62E-1 | 4.71E-1 | 1.08E-4 | 1.38E-2 | 1.75E-5 | -1.92E-1 | 2.93E-1 |
| PM | disease inc. | 1.02E-8 | 5.94E-10 | 5.17E-10 | 1.13E-8 | 2.07E-10 | 1.87E-9 | 1.35E-11 | -6.62E-9 | 6.75E-9 |
| IR | kBq U-235 eq | 1.22E-2 | 4.42E-4 | 2.32E-4 | 1.29E-2 | 1.54E-4 | 1.38E-3 | 8.94E-6 | -7.01E-3 | 7.41E-3 |
| ETP-fw | CTUe | 1.02E+1 | 8.20E-2 | 8.50E-2 | 1.04E+1 | 2.85E-2 | 2.67E+0 | 2.87E-2 | -4.34E+0 | 8.78E+0 |
| HTP-c | CTUh | 2.44E-10 | 2.92E-12 | 6.25E-12 | 2.53E-10 | 1.02E-12 | 4.76E-11 | 5.70E-14 | -8.82E-11 | 2.13E-10 |
| HTP-nc | CTUh | 6.20E-9 | 9.78E-11 | 1.66E-10 | 6.46E-9 | 3.40E-11 | 9.91E-10 | 5.58E-12 | -2.61E-9 | 4.88E-9 |
| SQP | Pt | 6.05E+0 | 8.64E-2 | 4.78E-1 | 6.62E+0 | 3.01E-2 | 2.38E-1 | 5.00E-3 | -1.02E+1 | -3.31E+0 |
| Resource use | Unit | A1 | A2 | A3 | A1-A3 | C2 | C3 | C4 | D | Total |
| PERE | MJ | 1.11E+0 | 1.45E-3 | 1.22E-1 | 1.23E+0 | 5.04E-4 | 2.60E-2 | 6.98E-5 | -1.80E+0 | -5.46E-1 |
| PERM | MJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PERT | MJ | 1.11E+0 | 1.45E-3 | 1.22E-1 | 1.23E+0 | 5.04E-4 | 2.60E-2 | 6.98E-5 | -1.80E+0 | -5.46E-1 |
| PENRE | MJ | 5.30E+0 | 1.07E-1 | 8.90E-2 | 5.50E+0 | 3.73E-2 | 4.09E-1 | 2.09E-3 | -2.95E+0 | 3.00E+0 |
| PENRM | MJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PENRT | MJ | 5.30E+0 | 1.07E-1 | 8.90E-2 | 5.50E+0 | 3.73E-2 | 4.09E-1 | 2.09E-3 | -2.95E+0 | 3.00E+0 |
| PET | MJ | 6.41E+0 | 1.09E-1 | 2.11E-1 | 6.73E+0 | 3.78E-2 | 4.35E-1 | 2.16E-3 | -4.75E+0 | 2.45E+0 |
| 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 | 4.17E-3 | 1.14E-5 | 3.78E-3 | 7.97E-3 | 3.98E-6 | 3.85E-4 | 2.38E-6 | -2.88E-3 | 5.47E-3 |

| Output flows and waste categories | Unit | A1 | A2 | A3 | A1-A3 | C2 | C3 | C4 | D | Total |
|-----------------------------------|------|---------|---------|---------|---------|---------|---------|---------|----------|---------|
| HWD | kg | 3.50E-5 | 2.58E-7 | 1.18E-7 | 3.54E-5 | 8.99E-8 | 6.63E-7 | 2.43E-9 | -2.63E-6 | 3.35E-5 |
| NHWD | kg | 3.87E-2 | 6.26E-3 | 8.66E-4 | 4.58E-2 | 2.18E-3 | 1.45E-2 | 8.71E-3 | -1.20E-2 | 5.92E-2 |
| RWD | kg | 1.10E-5 | 6.87E-7 | 2.39E-7 | 1.20E-5 | 2.39E-7 | 1.54E-6 | 1.27E-8 | -6.43E-6 | 7.32E-6 |
| 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 |



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777