

Environmental Profile

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

Ecochain v3.5.64



Product: 3072660 - Wafix PP Pipe GY 110 L=4 S/CH
 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



Wafix PP is a versatile, uncomplicated solution for your indoor drain. You can install the impact-resistant pipes even in frost. Their excellent chemical resistance makes them ideal for embedment applications.

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	9.50E+0	3.72E-1	3.21E-1	1.02E+1	1.23E-1	3.57E+0	5.80E-2	-5.75E+0	8.21E+0
GWP-f	kg CO2 eq	9.46E+0	3.71E-1	2.33E-1	1.01E+1	1.23E-1	3.58E+0	5.80E-2	-5.73E+0	8.10E+0
GWP-b	kg CO2 eq	4.42E-2	1.02E-4	6.12E-2	1.05E-1	7.48E-5	-4.98E-3	5.05E-5	-1.97E-2	8.09E-2
GWP-luluc	kg CO2 eq	2.50E-3	1.62E-4	2.70E-2	2.97E-2	4.36E-5	6.92E-4	9.86E-7	-1.09E-3	2.94E-2
ODP	kg CFC11 eq	1.82E-7	8.00E-8	2.64E-8	2.88E-7	2.84E-8	9.01E-8	1.46E-9	-2.11E-7	1.97E-7
AP	mol H+ eq	3.38E-2	4.90E-3	1.97E-3	4.07E-2	7.01E-4	3.79E-3	3.47E-5	-1.61E-2	2.90E-2
EP-fw	kg P eq	1.42E-4	3.11E-6	4.29E-6	1.49E-4	1.01E-6	2.00E-5	4.52E-8	-6.38E-5	1.07E-4
EP-m	kg N eq	5.62E-3	1.38E-3	5.84E-4	7.58E-3	2.51E-4	1.10E-3	2.26E-5	-2.85E-3	6.11E-3
EP-T	mol N eq	6.33E-2	1.53E-2	6.41E-3	8.51E-2	2.76E-3	1.21E-2	1.41E-4	-3.16E-2	6.85E-2
POCP	kg NMVOC eq	2.93E-2	4.12E-3	1.78E-3	3.52E-2	7.90E-4	3.83E-3	5.29E-5	-1.46E-2	2.52E-2
ADP-mm	kg Sb eq	1.39E-4	7.52E-6	7.00E-6	1.54E-4	3.18E-6	1.50E-5	3.50E-8	-3.78E-5	1.34E-4
ADP-f	MJ	3.36E+2	5.37E+0	2.31E+0	3.43E+2	1.89E+0	1.20E+1	1.06E-1	-1.80E+2	1.77E+2
WDP	m3 depriv.	6.61E+0	1.63E-2	1.49E+0	8.12E+0	5.80E-3	2.35E-1	5.30E-4	-3.12E+0	5.23E+0
PM	disease inc.	2.98E-7	2.73E-8	3.32E-8	3.59E-7	1.11E-8	6.24E-8	7.30E-10	-1.36E-7	2.97E-7
IR	kBq U-235 eq	1.77E-1	2.26E-2	6.87E-3	2.07E-1	8.26E-3	3.62E-2	4.93E-4	-8.31E-2	1.68E-1
ETP-fw	CTUe	5.24E+1	4.45E+0	6.45E+0	6.33E+1	1.53E+0	1.36E+1	8.89E-2	-2.31E+1	5.54E+1
HTP-c	CTUh	2.66E-9	1.71E-10	2.55E-10	3.09E-9	5.46E-11	1.63E-9	2.59E-12	-9.54E-10	3.82E-9
HTP-nc	CTUh	6.65E-8	4.61E-9	6.94E-9	7.81E-8	1.83E-9	2.02E-8	5.72E-11	-2.20E-8	7.82E-8
SQP	Pt	1.20E+1	3.70E+0	3.04E-1	1.60E+1	1.62E+0	9.61E+0	2.73E-1	-4.87E+0	2.26E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.06E+0	5.91E-2	1.46E+1	2.07E+1	2.71E-2	5.93E-1	4.12E-3	-2.23E+0	1.91E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.06E+0	5.91E-2	1.46E+1	2.07E+1	2.71E-2	5.93E-1	4.12E-3	-2.23E+0	1.91E+1
PENRE	MJ	3.60E+2	5.70E+0	2.46E+0	3.68E+2	2.01E+0	1.28E+1	1.13E-1	-1.94E+2	1.89E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.60E+2	5.70E+0	2.46E+0	3.68E+2	2.01E+0	1.28E+1	1.13E-1	-1.94E+2	1.89E+2
PET	MJ	3.66E+2	5.76E+0	1.70E+1	3.89E+2	2.03E+0	1.34E+1	1.17E-1	-1.96E+2	2.08E+2
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	9.97E-2	5.58E-4	3.54E-2	1.36E-1	2.14E-4	6.92E-3	1.31E-4	-4.68E-2	9.61E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.35E-5	1.15E-5	3.52E-6	5.85E-5	4.83E-6	1.95E-5	1.28E-7	-4.44E-5	3.86E-5
NHWD	kg	3.91E-1	2.61E-1	1.08E-2	6.62E-1	1.17E-1	5.89E-1	4.68E-1	-1.41E-1	1.70E+0
RWD	kg	1.55E-4	3.58E-5	9.78E-6	2.01E-4	1.29E-5	4.59E-5	6.94E-7	-7.50E-5	1.85E-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



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