

Environmental Profile

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

Ecochain v3.5.64



Product: 3061969 - Wafix PP Pipe GY 110 L=3 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	7.19E+0	2.83E-1	2.41E-1	7.71E+0	9.34E-2	2.71E+0	4.40E-2	-4.35E+0	6.21E+0
GWP-f	kg CO2 eq	7.15E+0	2.83E-1	1.75E-1	7.61E+0	9.33E-2	2.71E+0	4.40E-2	-4.33E+0	6.13E+0
GWP-b	kg CO2 eq	3.36E-2	7.83E-5	4.59E-2	7.96E-2	5.67E-5	-3.77E-3	3.83E-5	-1.50E-2	6.09E-2
GWP-luluc	kg CO2 eq	1.88E-3	1.23E-4	2.03E-2	2.23E-2	3.30E-5	5.25E-4	7.47E-7	-8.28E-4	2.20E-2
ODP	kg CFC11 eq	1.39E-7	6.10E-8	1.98E-8	2.19E-7	2.15E-8	6.83E-8	1.10E-9	-1.60E-7	1.50E-7
AP	mol H+ eq	2.56E-2	3.70E-3	1.48E-3	3.08E-2	5.32E-4	2.87E-3	2.63E-5	-1.22E-2	2.20E-2
EP-fw	kg P eq	1.07E-4	2.38E-6	3.22E-6	1.12E-4	7.68E-7	1.51E-5	3.43E-8	-4.81E-5	8.01E-5
EP-m	kg N eq	4.25E-3	1.05E-3	4.38E-4	5.74E-3	1.90E-4	8.34E-4	1.71E-5	-2.16E-3	4.62E-3
EP-T	mol N eq	4.80E-2	1.16E-2	4.81E-3	6.44E-2	2.10E-3	9.18E-3	1.07E-4	-2.39E-2	5.19E-2
POCP	kg NMVOC eq	2.21E-2	3.12E-3	1.34E-3	2.66E-2	5.99E-4	2.90E-3	4.01E-5	-1.10E-2	1.91E-2
ADP-mm	kg Sb eq	1.09E-4	5.75E-6	5.25E-6	1.20E-4	2.41E-6	1.14E-5	2.65E-8	-2.87E-5	1.05E-4
ADP-f	MJ	2.54E+2	4.09E+0	1.74E+0	2.60E+2	1.43E+0	9.10E+0	8.05E-2	-1.37E+2	1.34E+2
WDP	m3 depriv.	5.01E+0	1.24E-2	1.12E+0	6.14E+0	4.40E-3	1.78E-1	4.02E-4	-2.37E+0	3.95E+0
PM	disease inc.	2.25E-7	2.09E-8	2.50E-8	2.71E-7	8.42E-9	4.73E-8	5.54E-10	-1.02E-7	2.25E-7
IR	kBq U-235 eq	1.34E-1	1.73E-2	5.16E-3	1.56E-1	6.26E-3	2.74E-2	3.74E-4	-6.31E-2	1.27E-1
ETP-fw	CTUe	3.93E+1	3.40E+0	4.84E+0	4.75E+1	1.16E+0	1.03E+1	6.74E-2	-1.73E+1	4.18E+1
HTP-c	CTUh	1.90E-9	1.30E-10	1.91E-10	2.22E-9	4.14E-11	1.24E-9	1.97E-12	-7.22E-10	2.78E-9
HTP-nc	CTUh	4.92E-8	3.52E-9	5.21E-9	5.79E-8	1.39E-9	1.53E-8	4.34E-11	-1.79E-8	5.67E-8
SQP	Pt	9.13E+0	2.84E+0	2.28E-1	1.22E+1	1.23E+0	7.28E+0	2.07E-1	-3.68E+0	1.72E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.85E+0	4.52E-2	1.09E+1	1.58E+1	2.06E-2	4.49E-1	3.12E-3	-1.69E+0	1.46E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.85E+0	4.52E-2	1.09E+1	1.58E+1	2.06E-2	4.49E-1	3.12E-3	-1.69E+0	1.46E+1
PENRE	MJ	2.73E+2	4.35E+0	1.84E+0	2.79E+2	1.52E+0	9.70E+0	8.55E-2	-1.47E+2	1.43E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.73E+2	4.35E+0	1.84E+0	2.79E+2	1.52E+0	9.70E+0	8.55E-2	-1.47E+2	1.43E+2
PET	MJ	2.77E+2	4.39E+0	1.28E+1	2.95E+2	1.54E+0	1.01E+1	8.86E-2	-1.49E+2	1.58E+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	7.54E-2	4.27E-4	2.66E-2	1.02E-1	1.62E-4	5.25E-3	9.93E-5	-3.54E-2	7.25E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.23E-5	8.77E-6	2.64E-6	4.37E-5	3.66E-6	1.48E-5	9.70E-8	-3.29E-5	2.93E-5
NHWD	kg	2.94E-1	2.00E-1	8.10E-3	5.02E-1	8.88E-2	4.46E-1	3.55E-1	-1.06E-1	1.29E+0
RWD	kg	1.18E-4	2.73E-5	7.34E-6	1.52E-4	9.74E-6	3.48E-5	5.26E-7	-5.69E-5	1.40E-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