

Environmental Profile

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

Ecochain v3.5.64



Product: 3061947 - Wafix PP Pipe GY 50 L=0,5
 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]

Statement of Confidentiality

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.53E-1	1.40E-2	9.84E-3	3.77E-1	4.37E-3	1.27E-1	2.06E-3	-2.03E-1	3.07E-1
GWP-f	kg CO2 eq	3.51E-1	1.40E-2	7.13E-3	3.72E-1	4.36E-3	1.27E-1	2.06E-3	-2.02E-1	3.04E-1
GWP-b	kg CO2 eq	1.70E-3	4.28E-6	1.88E-3	3.58E-3	2.65E-6	-1.75E-4	1.79E-6	-7.08E-4	2.70E-3
GWP-luluc	kg CO2 eq	9.83E-5	5.93E-6	8.29E-4	9.33E-4	1.54E-6	2.45E-5	3.50E-8	-3.91E-5	9.20E-4
ODP	kg CFC11 eq	9.10E-9	3.02E-9	8.08E-10	1.29E-8	1.01E-9	3.18E-9	5.16E-11	-7.45E-9	9.72E-9
AP	mol H+ eq	1.30E-3	1.67E-4	6.04E-5	1.53E-3	2.48E-5	1.34E-4	1.23E-6	-5.68E-4	1.12E-3
EP-fw	kg P eq	5.41E-6	1.21E-7	1.32E-7	5.66E-6	3.59E-8	7.06E-7	1.61E-9	-2.23E-6	4.18E-6
EP-m	kg N eq	2.16E-4	4.80E-5	1.79E-5	2.82E-4	8.89E-6	3.89E-5	8.00E-7	-1.00E-4	2.31E-4
EP-T	mol N eq	2.45E-3	5.31E-4	1.96E-4	3.18E-3	9.80E-5	4.28E-4	5.00E-6	-1.11E-3	2.60E-3
POCP	kg NMVOC eq	1.11E-3	1.44E-4	5.46E-5	1.30E-3	2.80E-5	1.35E-4	1.87E-6	-5.13E-4	9.56E-4
ADP-mm	kg Sb eq	8.26E-6	2.95E-7	2.15E-7	8.77E-6	1.13E-7	5.30E-7	1.24E-9	-1.34E-6	8.07E-6
ADP-f	MJ	1.23E+1	2.03E-1	7.09E-2	1.26E+1	6.70E-2	4.25E-1	3.76E-3	-6.38E+0	6.68E+0
WDP	m3 depriv.	2.46E-1	6.36E-4	4.57E-2	2.92E-1	2.05E-4	8.33E-3	1.91E-5	-1.11E-1	1.90E-1
PM	disease inc.	1.16E-8	1.07E-9	1.02E-9	1.37E-8	3.94E-10	2.20E-9	2.59E-11	-4.75E-9	1.15E-8
IR	kBq U-235 eq	7.15E-3	8.57E-4	2.11E-4	8.22E-3	2.93E-4	1.28E-3	1.75E-5	-2.96E-3	6.85E-3
ETP-fw	CTUe	2.18E+0	1.71E-1	1.98E-1	2.54E+0	5.44E-2	4.79E-1	3.15E-3	-7.88E-1	2.29E+0
HTP-c	CTUh	9.05E-11	6.38E-12	7.80E-12	1.05E-10	1.93E-12	5.79E-11	9.21E-14	-3.37E-11	1.31E-10
HTP-nc	CTUh	2.51E-9	1.79E-10	2.13E-10	2.90E-9	6.48E-11	7.14E-10	2.03E-12	-9.54E-10	2.73E-9
SQP	Pt	5.31E-1	1.47E-1	9.32E-3	6.87E-1	5.73E-2	3.39E-1	9.66E-3	-1.71E-1	9.22E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.88E-1	2.30E-3	4.47E-1	8.37E-1	9.61E-4	2.10E-2	1.46E-4	-7.92E-2	7.80E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.88E-1	2.30E-3	4.47E-1	8.37E-1	9.61E-4	2.10E-2	1.46E-4	-7.92E-2	7.80E-1
PENRE	MJ	1.32E+1	2.16E-1	7.52E-2	1.35E+1	7.11E-2	4.53E-1	3.99E-3	-6.87E+0	7.13E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.32E+1	2.16E-1	7.52E-2	1.35E+1	7.11E-2	4.53E-1	3.99E-3	-6.87E+0	7.13E+0
PET	MJ	1.36E+1	2.18E-1	5.22E-1	1.43E+1	7.20E-2	4.74E-1	4.14E-3	-6.95E+0	7.91E+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	3.78E-3	2.18E-5	1.08E-3	4.89E-3	7.58E-6	2.45E-4	4.64E-6	-1.65E-3	3.49E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.75E-6	4.49E-7	1.08E-7	2.31E-6	1.71E-7	6.90E-7	4.54E-9	-1.46E-6	1.71E-6
NHWD	kg	1.71E-2	1.04E-2	3.31E-4	2.79E-2	4.15E-3	2.08E-2	1.66E-2	-4.91E-3	6.45E-2
RWD	kg	6.66E-6	1.35E-6	3.00E-7	8.31E-6	4.55E-7	1.62E-6	2.46E-8	-2.66E-6	7.75E-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



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