

Environmental Profile

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

Ecochain v3.5.64



Product: 3061968 - Wafix PP Pipe GY 110 L=6 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	1.40E+1	5.48E-1	4.81E-1	1.51E+1	1.83E-1	5.30E+0	8.61E-2	-8.51E+0	1.21E+1
GWP-f	kg CO2 eq	1.40E+1	5.48E-1	3.49E-1	1.49E+1	1.83E-1	5.31E+0	8.61E-2	-8.48E+0	1.20E+1
GWP-b	kg CO2 eq	6.48E-2	1.48E-4	9.17E-2	1.57E-1	1.11E-4	-7.37E-3	7.50E-5	-2.94E-2	1.20E-1
GWP-luluc	kg CO2 eq	3.66E-3	2.40E-4	4.05E-2	4.44E-2	6.46E-5	1.03E-3	1.46E-6	-1.62E-3	4.39E-2
ODP	kg CFC11 eq	2.60E-7	1.18E-7	3.95E-8	4.18E-7	4.21E-8	1.34E-7	2.16E-9	-3.13E-7	2.83E-7
AP	mol H+ eq	4.98E-2	7.29E-3	2.95E-3	6.00E-2	1.04E-3	5.62E-3	5.15E-5	-2.39E-2	4.28E-2
EP-fw	kg P eq	2.07E-4	4.57E-6	6.44E-6	2.18E-4	1.50E-6	2.96E-5	6.71E-8	-9.42E-5	1.55E-4
EP-m	kg N eq	8.27E-3	2.05E-3	8.75E-4	1.12E-2	3.72E-4	1.63E-3	3.35E-5	-4.22E-3	9.01E-3
EP-T	mol N eq	9.32E-2	2.27E-2	9.60E-3	1.26E-1	4.10E-3	1.80E-2	2.09E-4	-4.67E-2	1.01E-1
POCP	kg NMVOC eq	4.32E-2	6.12E-3	2.67E-3	5.19E-2	1.17E-3	5.68E-3	7.85E-5	-2.16E-2	3.72E-2
ADP-mm	kg Sb eq	2.00E-4	1.10E-5	1.05E-5	2.21E-4	4.72E-6	2.23E-5	5.19E-8	-5.61E-5	1.92E-4
ADP-f	MJ	4.97E+2	7.91E+0	3.46E+0	5.09E+2	2.80E+0	1.78E+1	1.58E-1	-2.67E+2	2.62E+2
WDP	m3 depriv.	9.80E+0	2.39E-2	2.23E+0	1.21E+1	8.60E-3	3.49E-1	7.86E-4	-4.63E+0	7.78E+0
PM	disease inc.	4.38E-7	4.01E-8	4.98E-8	5.28E-7	1.65E-8	9.25E-8	1.08E-9	-2.01E-7	4.37E-7
IR	kBq U-235 eq	2.58E-1	3.34E-2	1.03E-2	3.02E-1	1.23E-2	5.37E-2	7.31E-4	-1.24E-1	2.45E-1
ETP-fw	CTUe	7.56E+1	6.55E+0	9.66E+0	9.18E+1	2.28E+0	2.01E+1	1.32E-1	-3.38E+1	8.05E+1
HTP-c	CTUh	3.67E-9	2.53E-10	3.82E-10	4.31E-9	8.10E-11	2.42E-9	3.85E-12	-1.41E-9	5.40E-9
HTP-nc	CTUh	9.50E-8	6.78E-9	1.04E-8	1.12E-7	2.71E-9	2.99E-8	8.49E-11	-3.50E-8	1.10E-7
SQP	Pt	1.74E+1	5.43E+0	4.56E-1	2.33E+1	2.40E+0	1.42E+1	4.05E-1	-7.20E+0	3.31E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	8.36E+0	8.69E-2	2.19E+1	3.03E+1	4.02E-2	8.79E-1	6.11E-3	-3.31E+0	2.79E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	8.36E+0	8.69E-2	2.19E+1	3.03E+1	4.02E-2	8.79E-1	6.11E-3	-3.31E+0	2.79E+1
PENRE	MJ	5.34E+2	8.40E+0	3.68E+0	5.46E+2	2.98E+0	1.90E+1	1.67E-1	-2.88E+2	2.80E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.34E+2	8.40E+0	3.68E+0	5.46E+2	2.98E+0	1.90E+1	1.67E-1	-2.88E+2	2.80E+2
PET	MJ	5.42E+2	8.49E+0	2.55E+1	5.76E+2	3.02E+0	1.99E+1	1.73E-1	-2.91E+2	3.08E+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	1.47E-1	8.20E-4	5.30E-2	2.01E-1	3.17E-4	1.03E-2	1.94E-4	-6.93E-2	1.43E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.21E-5	1.68E-5	5.28E-6	8.42E-5	7.17E-6	2.90E-5	1.90E-7	-6.44E-5	5.61E-5
NHWD	kg	5.59E-1	3.82E-1	1.62E-2	9.58E-1	1.74E-1	8.74E-1	6.95E-1	-2.08E-1	2.49E+0
RWD	kg	2.26E-4	5.28E-5	1.47E-5	2.93E-4	1.91E-5	6.81E-5	1.03E-6	-1.11E-4	2.70E-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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