

Environmental Profile

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

Ecochain v3.5.64



Product: 3061966 - Wafix PP Pipe GY 110 L=6 PL/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	1.37E+1	5.31E-1	4.81E-1	1.48E+1	1.79E-1	5.20E+0	8.44E-2	-8.34E+0	1.19E+1
GWP-f	kg CO2 eq	1.37E+1	5.30E-1	3.49E-1	1.46E+1	1.79E-1	5.20E+0	8.44E-2	-8.31E+0	1.17E+1
GWP-b	kg CO2 eq	6.25E-2	1.40E-4	9.17E-2	1.54E-1	1.09E-4	-7.22E-3	7.35E-5	-2.88E-2	1.19E-1
GWP-luluc	kg CO2 eq	3.55E-3	2.33E-4	4.05E-2	4.43E-2	6.33E-5	1.01E-3	1.43E-6	-1.59E-3	4.38E-2
ODP	kg CFC11 eq	2.44E-7	1.14E-7	3.95E-8	3.98E-7	4.12E-8	1.31E-7	2.12E-9	-3.06E-7	2.66E-7
AP	mol H+ eq	4.86E-2	7.19E-3	2.95E-3	5.87E-2	1.02E-3	5.50E-3	5.04E-5	-2.34E-2	4.18E-2
EP-fw	kg P eq	2.02E-4	4.40E-6	6.44E-6	2.13E-4	1.47E-6	2.90E-5	6.58E-8	-9.23E-5	1.51E-4
EP-m	kg N eq	8.05E-3	2.02E-3	8.75E-4	1.09E-2	3.65E-4	1.60E-3	3.29E-5	-4.13E-3	8.80E-3
EP-T	mol N eq	9.08E-2	2.24E-2	9.60E-3	1.23E-1	4.02E-3	1.76E-2	2.05E-4	-4.58E-2	9.88E-2
POCP	kg NMVOC eq	4.21E-2	6.00E-3	2.67E-3	5.08E-2	1.15E-3	5.57E-3	7.69E-5	-2.12E-2	3.64E-2
ADP-mm	kg Sb eq	1.83E-4	1.06E-5	1.05E-5	2.04E-4	4.63E-6	2.18E-5	5.08E-8	-5.50E-5	1.76E-4
ADP-f	MJ	4.87E+2	7.65E+0	3.46E+0	4.98E+2	2.75E+0	1.75E+1	1.54E-1	-2.62E+2	2.57E+2
WDP	m3 depriv.	9.60E+0	2.30E-2	2.23E+0	1.19E+1	8.43E-3	3.42E-1	7.72E-4	-4.54E+0	7.66E+0
PM	disease inc.	4.26E-7	3.86E-8	4.98E-8	5.14E-7	1.62E-8	9.06E-8	1.06E-9	-1.97E-7	4.25E-7
IR	kBq U-235 eq	2.50E-1	3.23E-2	1.03E-2	2.92E-1	1.20E-2	5.26E-2	7.16E-4	-1.21E-1	2.37E-1
ETP-fw	CTUe	7.27E+1	6.31E+0	9.66E+0	8.87E+1	2.23E+0	1.97E+1	1.29E-1	-3.32E+1	7.76E+1
HTP-c	CTUh	3.56E-9	2.45E-10	3.82E-10	4.19E-9	7.94E-11	2.37E-9	3.77E-12	-1.38E-9	5.25E-9
HTP-nc	CTUh	9.20E-8	6.52E-9	1.04E-8	1.09E-7	2.66E-9	2.93E-8	8.32E-11	-3.42E-8	1.07E-7
SQP	Pt	1.66E+1	5.21E+0	4.56E-1	2.23E+1	2.35E+0	1.40E+1	3.96E-1	-7.06E+0	3.19E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.02E+0	8.36E-2	2.19E+1	2.90E+1	3.94E-2	8.62E-1	5.98E-3	-3.25E+0	2.66E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.02E+0	8.36E-2	2.19E+1	2.90E+1	3.94E-2	8.62E-1	5.98E-3	-3.25E+0	2.66E+1
PENRE	MJ	5.23E+2	8.12E+0	3.68E+0	5.35E+2	2.92E+0	1.86E+1	1.64E-1	-2.82E+2	2.74E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.23E+2	8.12E+0	3.68E+0	5.35E+2	2.92E+0	1.86E+1	1.64E-1	-2.82E+2	2.74E+2
PET	MJ	5.30E+2	8.21E+0	2.55E+1	5.64E+2	2.96E+0	1.95E+1	1.70E-1	-2.86E+2	3.01E+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	1.44E-1	7.88E-4	5.30E-2	1.98E-1	3.11E-4	1.01E-2	1.90E-4	-6.79E-2	1.40E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.98E-5	1.62E-5	5.28E-6	8.12E-5	7.03E-6	2.84E-5	1.86E-7	-6.32E-5	5.36E-5
NHWD	kg	5.32E-1	3.66E-1	1.62E-2	9.14E-1	1.70E-1	8.56E-1	6.81E-1	-2.04E-1	2.42E+0
RWD	kg	2.16E-4	5.10E-5	1.47E-5	2.82E-4	1.87E-5	6.67E-5	1.01E-6	-1.09E-4	2.59E-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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