

Environmental Profile

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

Ecochain v3.5.64



Product: 3062119 - Wafix PP Pipe BR 110 SN8 L=1
 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	2.82E+0	2.61E-1	9.13E-2	3.17E+0	3.58E-2	1.04E+0	1.69E-2	-1.68E+0	2.59E+0
GWP-f	kg CO2 eq	2.80E+0	2.60E-1	6.62E-2	3.13E+0	3.58E-2	1.04E+0	1.69E-2	-1.67E+0	2.55E+0
GWP-b	kg CO2 eq	1.37E-2	1.19E-4	1.74E-2	3.12E-2	2.17E-5	-1.46E-3	1.47E-5	-5.68E-3	2.41E-2
GWP-luluc	kg CO2 eq	7.71E-4	9.61E-5	7.69E-3	8.56E-3	1.27E-5	2.02E-4	2.86E-7	-3.12E-4	8.46E-3
ODP	kg CFC11 eq	6.25E-8	5.74E-8	7.50E-9	1.27E-7	8.25E-9	2.63E-8	4.23E-10	-6.15E-8	1.01E-7
AP	mol H+ eq	1.02E-2	1.58E-3	5.61E-4	1.23E-2	2.04E-4	1.11E-3	1.01E-5	-4.71E-3	8.91E-3
EP-fw	kg P eq	4.37E-5	2.61E-6	1.22E-6	4.75E-5	2.95E-7	5.83E-6	1.31E-8	-1.87E-5	3.49E-5
EP-m	kg N eq	1.70E-3	5.48E-4	1.66E-4	2.41E-3	7.30E-5	3.21E-4	6.57E-6	-8.33E-4	1.98E-3
EP-T	mol N eq	1.92E-2	6.04E-3	1.82E-3	2.70E-2	8.04E-4	3.53E-3	4.10E-5	-9.22E-3	2.22E-2
POCP	kg NMVOC eq	8.77E-3	1.72E-3	5.06E-4	1.10E-2	2.30E-4	1.12E-3	1.54E-5	-4.28E-3	8.08E-3
ADP-mm	kg Sb eq	5.03E-5	6.55E-6	1.99E-6	5.88E-5	9.26E-7	4.39E-6	1.02E-8	-1.10E-5	5.32E-5
ADP-f	MJ	9.85E+1	3.92E+0	6.58E-1	1.03E+2	5.49E-1	3.50E+0	3.09E-2	-5.24E+1	5.47E+1
WDP	m3 depriv.	1.94E+0	1.40E-2	4.24E-1	2.38E+0	1.69E-3	6.85E-2	1.54E-4	-9.10E-1	1.54E+0
PM	disease inc.	9.09E-8	2.32E-8	9.46E-9	1.24E-7	3.23E-9	1.82E-8	2.12E-10	-3.97E-8	1.05E-7
IR	kBq U-235 eq	5.54E-2	1.64E-2	1.96E-3	7.38E-2	2.40E-3	1.06E-2	1.43E-4	-2.41E-2	6.28E-2
ETP-fw	CTUe	1.69E+1	3.49E+0	1.83E+0	2.22E+1	4.46E-1	3.96E+0	2.59E-2	-6.90E+0	1.97E+1
HTP-c	CTUh	9.23E-10	1.14E-10	7.24E-11	1.11E-9	1.59E-11	4.74E-10	7.53E-13	-2.78E-10	1.32E-9
HTP-nc	CTUh	2.17E-8	3.81E-9	1.97E-9	2.74E-8	5.32E-10	5.89E-9	1.66E-11	-5.34E-9	2.85E-8
SQP	Pt	3.93E+0	3.38E+0	8.65E-2	7.39E+0	4.70E-1	2.80E+0	7.93E-2	-1.42E+0	9.32E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.58E+0	4.89E-2	4.15E+0	6.77E+0	7.88E-3	1.73E-1	1.20E-3	-6.48E-1	6.31E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.58E+0	4.89E-2	4.15E+0	6.77E+0	7.88E-3	1.73E-1	1.20E-3	-6.48E-1	6.31E+0
PENRE	MJ	1.06E+2	4.16E+0	6.98E-1	1.11E+2	5.83E-1	3.73E+0	3.28E-2	-5.65E+1	5.84E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.06E+2	4.16E+0	6.98E-1	1.11E+2	5.83E-1	3.73E+0	3.28E-2	-5.65E+1	5.84E+1
PET	MJ	1.08E+2	4.21E+0	4.85E+0	1.17E+2	5.91E-1	3.90E+0	3.40E-2	-5.72E+1	6.47E+1
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	2.96E-2	4.75E-4	1.01E-2	4.02E-2	6.22E-5	2.01E-3	3.81E-5	-1.36E-2	2.87E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.44E-5	9.89E-6	1.00E-6	2.53E-5	1.41E-6	5.70E-6	3.72E-8	-1.36E-5	1.89E-5
NHWD	kg	1.32E-1	2.47E-1	3.07E-3	3.82E-1	3.41E-2	1.72E-1	1.36E-1	-4.15E-2	6.82E-1
RWD	kg	5.00E-5	2.58E-5	2.78E-6	7.85E-5	3.74E-6	1.34E-5	2.02E-7	-2.18E-5	7.41E-5
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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