

Environmental Profile

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

Ecochain v3.5.64



Product: 3062122 - Wafix PP Pipe BR 160 SN8 L=1 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	6.04E+0	5.53E-1	1.90E-1	6.79E+0	7.70E-2	2.23E+0	3.62E-2	-3.60E+0	5.54E+0
GWP-f	kg CO2 eq	6.01E+0	5.53E-1	1.38E-1	6.70E+0	7.69E-2	2.24E+0	3.63E-2	-3.58E+0	5.47E+0
GWP-b	kg CO2 eq	3.01E-2	2.52E-4	3.62E-2	6.66E-2	4.67E-5	-3.12E-3	3.16E-5	-1.22E-2	5.13E-2
GWP-luluc	kg CO2 eq	1.64E-3	2.04E-4	1.60E-2	1.79E-2	2.72E-5	4.33E-4	6.15E-7	-6.73E-4	1.76E-2
ODP	kg CFC11 eq	1.36E-7	1.22E-7	1.56E-8	2.74E-7	1.77E-8	5.64E-8	9.09E-10	-1.32E-7	2.17E-7
AP	mol H+ eq	2.18E-2	3.35E-3	1.17E-3	2.63E-2	4.38E-4	2.37E-3	2.17E-5	-1.01E-2	1.90E-2
EP-fw	kg P eq	9.31E-5	5.55E-6	2.54E-6	1.01E-4	6.33E-7	1.25E-5	2.82E-8	-4.01E-5	7.43E-5
EP-m	kg N eq	3.66E-3	1.16E-3	3.46E-4	5.17E-3	1.57E-4	6.89E-4	1.41E-5	-1.79E-3	4.24E-3
EP-T	mol N eq	4.13E-2	1.28E-2	3.79E-3	5.79E-2	1.73E-3	7.58E-3	8.80E-5	-1.98E-2	4.75E-2
POCP	kg NMVOC eq	1.89E-2	3.65E-3	1.05E-3	2.36E-2	4.94E-4	2.40E-3	3.30E-5	-9.17E-3	1.73E-2
ADP-mm	kg Sb eq	1.10E-4	1.39E-5	4.14E-6	1.28E-4	1.99E-6	9.41E-6	2.18E-8	-2.36E-5	1.16E-4
ADP-f	MJ	2.11E+2	8.33E+0	1.37E+0	2.21E+2	1.18E+0	7.51E+0	6.63E-2	-1.13E+2	1.17E+2
WDP	m3 depriv.	4.16E+0	2.96E-2	8.81E-1	5.07E+0	3.62E-3	1.47E-1	3.29E-4	-1.95E+0	3.27E+0
PM	disease inc.	1.95E-7	4.93E-8	1.97E-8	2.64E-7	6.94E-9	3.90E-8	4.56E-10	-8.51E-8	2.26E-7
IR	kBq U-235 eq	1.19E-1	3.49E-2	4.07E-3	1.58E-1	5.16E-3	2.27E-2	3.08E-4	-5.18E-2	1.34E-1
ETP-fw	CTUe	3.61E+1	7.41E+0	3.81E+0	4.73E+1	9.58E-1	8.50E+0	5.55E-2	-1.47E+1	4.22E+1
HTP-c	CTUh	1.91E-9	2.42E-10	1.51E-10	2.30E-9	3.41E-11	1.02E-9	1.62E-12	-5.97E-10	2.76E-9
HTP-nc	CTUh	4.59E-8	8.09E-9	4.11E-9	5.81E-8	1.14E-9	1.26E-8	3.57E-11	-1.24E-8	5.95E-8
SQP	Pt	8.57E+0	7.18E+0	1.80E-1	1.59E+1	1.01E+0	6.01E+0	1.70E-1	-3.05E+0	2.01E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.25E+0	1.04E-1	8.63E+0	1.50E+1	1.69E-2	3.71E-1	2.57E-3	-1.39E+0	1.40E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.25E+0	1.04E-1	8.63E+0	1.50E+1	1.69E-2	3.71E-1	2.57E-3	-1.39E+0	1.40E+1
PENRE	MJ	2.27E+2	8.84E+0	1.45E+0	2.37E+2	1.25E+0	8.00E+0	7.04E-2	-1.21E+2	1.25E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.27E+2	8.84E+0	1.45E+0	2.37E+2	1.25E+0	8.00E+0	7.04E-2	-1.21E+2	1.25E+2
PET	MJ	2.33E+2	8.94E+0	1.01E+1	2.52E+2	1.27E+0	8.37E+0	7.30E-2	-1.23E+2	1.39E+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	6.34E-2	1.01E-3	2.09E-2	8.54E-2	1.34E-4	4.33E-3	8.18E-5	-2.92E-2	6.07E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.06E-5	2.10E-5	2.08E-6	5.36E-5	3.02E-6	1.22E-5	7.99E-8	-2.86E-5	4.04E-5
NHWD	kg	2.87E-1	5.24E-1	6.38E-3	8.18E-1	7.32E-2	3.69E-1	2.92E-1	-8.88E-2	1.46E+0
RWD	kg	1.08E-4	5.47E-5	5.79E-6	1.69E-4	8.03E-6	2.87E-5	4.33E-7	-4.68E-5	1.59E-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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