

Environmental Profile

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

Ecochain v3.5.64



Product: 3061955 - Wafix PP Pipe GY 75 L=4 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 non-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	4.33E+0	1.67E-1	1.51E-1	4.65E+0	5.62E-2	1.63E+0	2.65E-2	-2.62E+0	3.74E+0
GWP-f	kg CO2 eq	4.31E+0	1.67E-1	1.09E-1	4.59E+0	5.62E-2	1.63E+0	2.65E-2	-2.61E+0	3.69E+0
GWP-b	kg CO2 eq	1.97E-2	4.41E-5	2.88E-2	4.85E-2	3.41E-5	-2.27E-3	2.31E-5	-9.00E-3	3.73E-2
GWP-luluc	kg CO2 eq	1.13E-3	7.33E-5	1.27E-2	1.39E-2	1.99E-5	3.16E-4	4.50E-7	-4.95E-4	1.38E-2
ODP	kg CFC11 eq	7.80E-8	3.59E-8	1.24E-8	1.26E-7	1.30E-8	4.12E-8	6.64E-10	-9.63E-8	8.47E-8
AP	mol H+ eq	1.53E-2	2.26E-3	9.27E-4	1.85E-2	3.20E-4	1.73E-3	1.58E-5	-7.37E-3	1.32E-2
EP-fw	kg P eq	6.43E-5	1.38E-6	2.02E-6	6.77E-5	4.62E-7	9.13E-6	2.07E-8	-2.91E-5	4.82E-5
EP-m	kg N eq	2.54E-3	6.34E-4	2.75E-4	3.45E-3	1.15E-4	5.03E-4	1.03E-5	-1.30E-3	2.78E-3
EP-T	mol N eq	2.87E-2	7.02E-3	3.01E-3	3.87E-2	1.26E-3	5.53E-3	6.43E-5	-1.44E-2	3.11E-2
POCP	kg NMVOC eq	1.33E-2	1.89E-3	8.37E-4	1.60E-2	3.61E-4	1.75E-3	2.41E-5	-6.68E-3	1.15E-2
ADP-mm	kg Sb eq	5.78E-5	3.33E-6	3.29E-6	6.45E-5	1.45E-6	6.86E-6	1.60E-8	-1.73E-5	5.55E-5
ADP-f	MJ	1.53E+2	2.40E+0	1.09E+0	1.57E+2	8.63E-1	5.49E+0	4.85E-2	-8.23E+1	8.08E+1
WDP	m3 depriv.	3.02E+0	7.22E-3	7.01E-1	3.72E+0	2.65E-3	1.07E-1	2.43E-4	-1.43E+0	2.41E+0
PM	disease inc.	1.35E-7	1.21E-8	1.56E-8	1.62E-7	5.07E-9	2.85E-8	3.33E-10	-6.19E-8	1.34E-7
IR	kBq U-235 eq	7.93E-2	1.01E-2	3.23E-3	9.26E-2	3.77E-3	1.65E-2	2.25E-4	-3.79E-2	7.52E-2
ETP-fw	CTUe	2.33E+1	1.98E+0	3.03E+0	2.83E+1	7.01E-1	6.20E+0	4.06E-2	-1.06E+1	2.47E+1
HTP-c	CTUh	1.20E-9	7.70E-11	1.20E-10	1.40E-9	2.49E-11	7.45E-10	1.18E-12	-4.35E-10	1.73E-9
HTP-nc	CTUh	2.99E-8	2.05E-9	3.26E-9	3.52E-8	8.35E-10	9.23E-9	2.61E-11	-9.96E-9	3.53E-8
SQP	Pt	5.27E+0	1.64E+0	1.43E-1	7.05E+0	7.38E-1	4.39E+0	1.24E-1	-2.22E+0	1.01E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.22E+0	2.63E-2	6.86E+0	9.11E+0	1.24E-2	2.71E-1	1.88E-3	-1.02E+0	8.37E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.22E+0	2.63E-2	6.86E+0	9.11E+0	1.24E-2	2.71E-1	1.88E-3	-1.02E+0	8.37E+0
PENRE	MJ	1.64E+2	2.55E+0	1.15E+0	1.68E+2	9.16E-1	5.84E+0	5.15E-2	-8.87E+1	8.62E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.64E+2	2.55E+0	1.15E+0	1.68E+2	9.16E-1	5.84E+0	5.15E-2	-8.87E+1	8.62E+1
PET	MJ	1.67E+2	2.58E+0	8.01E+0	1.77E+2	9.28E-1	6.12E+0	5.33E-2	-8.97E+1	9.46E+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	4.53E-2	2.48E-4	1.66E-2	6.22E-2	9.76E-5	3.16E-3	5.98E-5	-2.13E-2	4.42E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.94E-5	5.08E-6	1.66E-6	2.61E-5	2.21E-6	8.92E-6	5.84E-8	-2.03E-5	1.70E-5
NHWD	kg	1.71E-1	1.15E-1	5.07E-3	2.91E-1	5.35E-2	2.69E-1	2.14E-1	-6.44E-2	7.63E-1
RWD	kg	6.87E-5	1.60E-5	4.60E-6	8.93E-5	5.87E-6	2.10E-5	3.17E-7	-3.42E-5	8.22E-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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