

Environmental Profile

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

Ecochain v3.5.64



Product: 4055376 - Wafix PP Pipe GY 50 L=1,5 w/socket
 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	9.47E-1	3.59E-2	2.94E-2	1.01E+0	1.17E-2	3.52E-1	5.52E-3	-5.56E-1	8.26E-1
GWP-f	kg CO2 eq	9.43E-1	3.59E-2	2.13E-2	1.00E+0	1.17E-2	3.53E-1	5.52E-3	-5.54E-1	8.16E-1
GWP-b	kg CO2 eq	4.07E-3	1.01E-5	5.61E-3	9.69E-3	7.11E-6	-4.76E-4	4.80E-6	-1.86E-3	7.37E-3
GWP-luluc	kg CO2 eq	2.71E-4	1.56E-5	2.48E-3	2.77E-3	4.14E-6	6.60E-5	9.39E-8	-1.02E-4	2.74E-3
ODP	kg CFC11 eq	2.10E-8	7.74E-9	2.42E-9	3.11E-8	2.70E-9	8.63E-9	1.38E-10	-2.09E-8	2.17E-8
AP	mol H+ eq	3.43E-3	4.62E-4	1.81E-4	4.08E-3	6.67E-5	3.64E-4	3.30E-6	-1.55E-3	2.96E-3
EP-fw	kg P eq	1.50E-5	3.03E-7	3.94E-7	1.57E-5	9.63E-8	1.91E-6	4.31E-9	-6.15E-6	1.16E-5
EP-m	kg N eq	5.72E-4	1.31E-4	5.36E-5	7.57E-4	2.39E-5	1.06E-4	2.15E-6	-2.74E-4	6.14E-4
EP-T	mol N eq	6.46E-3	1.45E-3	5.88E-4	8.50E-3	2.63E-4	1.17E-3	1.34E-5	-3.04E-3	6.90E-3
POCP	kg NMVOC eq	2.95E-3	3.91E-4	1.63E-4	3.50E-3	7.52E-5	3.68E-4	5.03E-6	-1.41E-3	2.54E-3
ADP-mm	kg Sb eq	1.61E-5	7.34E-7	6.42E-7	1.75E-5	3.03E-7	1.44E-6	3.33E-9	-3.60E-6	1.56E-5
ADP-f	MJ	3.29E+1	5.20E-1	2.12E-1	3.36E+1	1.80E-1	1.15E+0	1.01E-2	-1.73E+1	1.77E+1
WDP	m3 depriv.	6.51E-1	1.59E-3	1.37E-1	7.90E-1	5.51E-4	2.24E-2	5.10E-5	-2.98E-1	5.15E-1
PM	disease inc.	3.05E-8	2.66E-9	3.05E-9	3.62E-8	1.06E-9	5.97E-9	6.95E-11	-1.30E-8	3.02E-8
IR	kBq U-235 eq	1.87E-2	2.19E-3	6.31E-4	2.15E-2	7.85E-4	3.46E-3	4.68E-5	-7.91E-3	1.79E-2
ETP-fw	CTUe	5.80E+0	4.32E-1	5.91E-1	6.82E+0	1.46E-1	1.30E+0	8.46E-3	-2.27E+0	6.00E+0
HTP-c	CTUh	3.08E-10	1.65E-11	2.34E-11	3.48E-10	5.19E-12	1.57E-10	2.47E-13	-9.15E-11	4.19E-10
HTP-nc	CTUh	7.24E-9	4.49E-10	6.37E-10	8.33E-9	1.74E-10	1.94E-9	5.44E-12	-1.73E-9	8.72E-9
SQP	Pt	1.32E+0	3.63E-1	2.79E-2	1.71E+0	1.54E-1	9.19E-1	2.59E-2	-4.69E-1	2.34E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.12E-1	5.76E-3	1.34E+0	2.06E+0	2.58E-3	5.66E-2	3.91E-4	-2.12E-1	1.90E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.12E-1	5.76E-3	1.34E+0	2.06E+0	2.58E-3	5.66E-2	3.91E-4	-2.12E-1	1.90E+0
PENRE	MJ	3.53E+1	5.52E-1	2.25E-1	3.61E+1	1.91E-1	1.22E+0	1.07E-2	-1.86E+1	1.89E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.53E+1	5.52E-1	2.25E-1	3.61E+1	1.91E-1	1.22E+0	1.07E-2	-1.86E+1	1.89E+1
PET	MJ	3.60E+1	5.58E-1	1.56E+0	3.81E+1	1.93E-1	1.28E+0	1.11E-2	-1.88E+1	2.08E+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	1.00E-2	5.45E-5	3.25E-3	1.33E-2	2.03E-5	6.62E-4	1.25E-5	-4.46E-3	9.56E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.00E-6	1.12E-6	3.23E-7	6.44E-6	4.60E-7	1.87E-6	1.22E-8	-4.61E-6	4.18E-6
NHWD	kg	4.36E-2	2.56E-2	9.90E-4	7.02E-2	1.11E-2	5.68E-2	4.45E-2	-1.37E-2	1.69E-1
RWD	kg	1.67E-5	3.46E-6	8.97E-7	2.11E-5	1.22E-6	4.39E-6	6.60E-8	-7.18E-6	1.96E-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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