

Environmental Profile

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

Ecochain v3.5.64



Product: 4055379 - Wafix PP Pipe L/GY 50 L=3 wo/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 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	1.73E+0	6.54E-2	5.88E-2	1.85E+0	2.20E-2	6.57E-1	1.04E-2	-1.04E+0	1.50E+0
GWP-f	kg CO2 eq	1.72E+0	6.53E-2	4.26E-2	1.83E+0	2.20E-2	6.58E-1	1.04E-2	-1.04E+0	1.48E+0
GWP-b	kg CO2 eq	7.34E-3	1.73E-5	1.12E-2	1.86E-2	1.33E-5	-8.92E-4	9.02E-6	-3.51E-3	1.42E-2
GWP-luluc	kg CO2 eq	4.71E-4	2.87E-5	4.96E-3	5.46E-3	7.78E-6	1.24E-4	1.76E-7	-1.93E-4	5.40E-3
ODP	kg CFC11 eq	3.24E-8	1.41E-8	4.83E-9	5.12E-8	5.07E-9	1.62E-8	2.60E-10	-3.89E-8	3.38E-8
AP	mol H+ eq	6.15E-3	8.83E-4	3.61E-4	7.39E-3	1.25E-4	6.81E-4	6.20E-6	-2.90E-3	5.31E-3
EP-fw	kg P eq	2.65E-5	5.42E-7	7.87E-7	2.78E-5	1.81E-7	3.58E-6	8.08E-9	-1.15E-5	2.01E-5
EP-m	kg N eq	1.02E-3	2.48E-4	1.07E-4	1.38E-3	4.48E-5	1.98E-4	4.04E-6	-5.13E-4	1.11E-3
EP-T	mol N eq	1.15E-2	2.75E-3	1.17E-3	1.54E-2	4.94E-4	2.18E-3	2.52E-5	-5.68E-3	1.25E-2
POCP	kg NMVOC eq	5.32E-3	7.38E-4	3.26E-4	6.39E-3	1.41E-4	6.89E-4	9.45E-6	-2.63E-3	4.59E-3
ADP-mm	kg Sb eq	2.30E-5	1.31E-6	1.28E-6	2.56E-5	5.69E-7	2.69E-6	6.25E-9	-6.77E-6	2.21E-5
ADP-f	MJ	6.07E+1	9.42E-1	4.24E-1	6.20E+1	3.37E-1	2.15E+0	1.90E-2	-3.24E+1	3.21E+1
WDP	m3 depriv.	1.20E+0	2.83E-3	2.73E-1	1.47E+0	1.04E-3	4.21E-2	9.54E-5	-5.59E-1	9.55E-1
PM	disease inc.	5.40E-8	4.75E-9	6.09E-9	6.49E-8	1.98E-9	1.12E-8	1.30E-10	-2.44E-8	5.38E-8
IR	kBq U-235 eq	3.23E-2	3.97E-3	1.26E-3	3.75E-2	1.47E-3	6.49E-3	8.80E-5	-1.49E-2	3.07E-2
ETP-fw	CTUe	9.72E+0	7.78E-1	1.18E+0	1.17E+1	2.74E-1	2.44E+0	1.59E-2	-4.20E+0	1.02E+1
HTP-c	CTUh	5.12E-10	3.02E-11	4.66E-11	5.89E-10	9.75E-12	2.94E-10	4.63E-13	-1.71E-10	7.22E-10
HTP-nc	CTUh	1.23E-8	8.04E-10	1.27E-9	1.44E-8	3.27E-10	3.63E-9	1.02E-11	-3.58E-9	1.48E-8
SQP	Pt	2.18E+0	6.42E-1	5.57E-2	2.88E+0	2.89E-1	1.72E+0	4.87E-2	-8.77E-1	4.06E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.08E-1	1.03E-2	2.67E+0	3.59E+0	4.84E-3	1.06E-1	7.35E-4	-3.99E-1	3.30E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.08E-1	1.03E-2	2.67E+0	3.59E+0	4.84E-3	1.06E-1	7.35E-4	-3.99E-1	3.30E+0
PENRE	MJ	6.51E+1	1.00E+0	4.50E-1	6.65E+1	3.58E-1	2.29E+0	2.01E-2	-3.49E+1	3.43E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.51E+1	1.00E+0	4.50E-1	6.65E+1	3.58E-1	2.29E+0	2.01E-2	-3.49E+1	3.43E+1
PET	MJ	6.60E+1	1.01E+0	3.12E+0	7.01E+1	3.63E-1	2.40E+0	2.09E-2	-3.53E+1	3.76E+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	1.81E-2	9.72E-5	6.49E-3	2.47E-2	3.82E-5	1.24E-3	2.34E-5	-8.37E-3	1.76E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.29E-6	1.99E-6	6.45E-7	1.09E-5	8.63E-7	3.51E-6	2.29E-8	-8.39E-6	6.93E-6
NHWD	kg	7.07E-2	4.51E-2	1.98E-3	1.18E-1	2.09E-2	1.06E-1	8.36E-2	-2.55E-2	3.03E-1
RWD	kg	2.80E-5	6.29E-6	1.79E-6	3.61E-5	2.29E-6	8.23E-6	1.24E-7	-1.35E-5	3.33E-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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