

Environmental Profile

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

Ecochain v3.5.64



Product: 3061943 - Wafix PP Pipe GY 40 L=2 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	9.70E-1	3.68E-2	3.11E-2	1.04E+0	1.21E-2	3.62E-1	5.71E-3	-5.72E-1	8.46E-1
GWP-f	kg CO2 eq	9.65E-1	3.68E-2	2.26E-2	1.02E+0	1.21E-2	3.62E-1	5.71E-3	-5.70E-1	8.35E-1
GWP-b	kg CO2 eq	4.12E-3	1.02E-5	5.94E-3	1.01E-2	7.35E-6	-4.89E-4	4.97E-6	-1.94E-3	7.65E-3
GWP-luluc	kg CO2 eq	2.71E-4	1.60E-5	2.62E-3	2.91E-3	4.28E-6	6.81E-5	9.70E-8	-1.07E-4	2.88E-3
ODP	kg CFC11 eq	2.10E-8	7.92E-9	2.56E-9	3.15E-8	2.79E-9	8.89E-9	1.43E-10	-2.14E-8	2.19E-8
AP	mol H+ eq	3.50E-3	4.80E-4	1.91E-4	4.17E-3	6.89E-5	3.74E-4	3.41E-6	-1.59E-3	3.03E-3
EP-fw	kg P eq	1.51E-5	3.09E-7	4.17E-7	1.58E-5	9.96E-8	1.97E-6	4.45E-9	-6.29E-6	1.16E-5
EP-m	kg N eq	5.82E-4	1.36E-4	5.67E-5	7.74E-4	2.47E-5	1.09E-4	2.22E-6	-2.82E-4	6.28E-4
EP-T	mol N eq	6.58E-3	1.50E-3	6.22E-4	8.70E-3	2.72E-4	1.20E-3	1.39E-5	-3.12E-3	7.07E-3
POCP	kg NMVOC eq	3.01E-3	4.05E-4	1.73E-4	3.59E-3	7.77E-5	3.79E-4	5.20E-6	-1.45E-3	2.60E-3
ADP-mm	kg Sb eq	1.68E-5	7.47E-7	6.79E-7	1.83E-5	3.13E-7	1.48E-6	3.44E-9	-3.73E-6	1.63E-5
ADP-f	MJ	3.39E+1	5.32E-1	2.24E-1	3.46E+1	1.86E-1	1.18E+0	1.04E-2	-1.78E+1	1.82E+1
WDP	m3 depriv.	6.71E-1	1.62E-3	1.45E-1	8.17E-1	5.70E-4	2.32E-2	5.26E-5	-3.08E-1	5.33E-1
PM	disease inc.	3.09E-8	2.71E-9	3.23E-9	3.69E-8	1.09E-9	6.16E-9	7.18E-11	-1.34E-8	3.08E-8
IR	kBq U-235 eq	1.89E-2	2.24E-3	6.67E-4	2.18E-2	8.12E-4	3.57E-3	4.84E-5	-8.20E-3	1.81E-2
ETP-fw	CTUe	5.73E+0	4.41E-1	6.25E-1	6.80E+0	1.51E-1	1.34E+0	8.74E-3	-2.29E+0	6.01E+0
HTP-c	CTUh	2.81E-10	1.69E-11	2.47E-11	3.23E-10	5.37E-12	1.62E-10	2.55E-13	-9.43E-11	3.96E-10
HTP-nc	CTUh	7.00E-9	4.58E-10	6.73E-10	8.13E-9	1.80E-10	2.00E-9	5.63E-12	-2.13E-9	8.19E-9
SQP	Pt	1.32E+0	3.69E-1	2.95E-2	1.72E+0	1.59E-1	9.47E-1	2.68E-2	-4.82E-1	2.37E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.69E-1	5.87E-3	1.41E+0	2.09E+0	2.67E-3	5.84E-2	4.04E-4	-2.20E-1	1.93E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.69E-1	5.87E-3	1.41E+0	2.09E+0	2.67E-3	5.84E-2	4.04E-4	-2.20E-1	1.93E+0
PENRE	MJ	3.63E+1	5.65E-1	2.38E-1	3.71E+1	1.97E-1	1.26E+0	1.11E-2	-1.92E+1	1.94E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.63E+1	5.65E-1	2.38E-1	3.71E+1	1.97E-1	1.26E+0	1.11E-2	-1.92E+1	1.94E+1
PET	MJ	3.70E+1	5.70E-1	1.65E+0	3.92E+1	2.00E-1	1.32E+0	1.15E-2	-1.94E+1	2.13E+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	1.03E-2	5.54E-5	3.43E-3	1.38E-2	2.10E-5	6.83E-4	1.29E-5	-4.61E-3	9.89E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.85E-6	1.14E-6	3.42E-7	6.33E-6	4.75E-7	1.93E-6	1.26E-8	-4.52E-6	4.22E-6
NHWD	kg	4.25E-2	2.60E-2	1.05E-3	6.95E-2	1.15E-2	5.85E-2	4.60E-2	-1.39E-2	1.72E-1
RWD	kg	1.69E-5	3.54E-6	9.49E-7	2.14E-5	1.26E-6	4.53E-6	6.82E-8	-7.42E-6	1.98E-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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