

Environmental Profile

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

Ecochain v3.5.64



Product: 3061942 - Wafix PP Pipe GY 40 L=1,5 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 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	7.54E-1	2.83E-2	2.34E-2	8.05E-1	9.24E-3	2.79E-1	4.35E-3	-4.39E-1	6.59E-1
GWP-f	kg CO2 eq	7.51E-1	2.83E-2	1.69E-2	7.96E-1	9.23E-3	2.79E-1	4.35E-3	-4.38E-1	6.51E-1
GWP-b	kg CO2 eq	3.15E-3	7.95E-6	4.45E-3	7.61E-3	5.61E-6	-3.75E-4	3.79E-6	-1.46E-3	5.78E-3
GWP-luluc	kg CO2 eq	2.19E-4	1.23E-5	1.97E-3	2.20E-3	3.27E-6	5.21E-5	7.41E-8	-8.05E-5	2.17E-3
ODP	kg CFC11 eq	1.75E-8	6.10E-9	1.92E-9	2.55E-8	2.13E-9	6.81E-9	1.09E-10	-1.65E-8	1.80E-8
AP	mol H+ eq	2.75E-3	3.65E-4	1.43E-4	3.26E-3	5.26E-5	2.87E-4	2.60E-6	-1.22E-3	2.38E-3
EP-fw	kg P eq	1.21E-5	2.39E-7	3.12E-7	1.27E-5	7.60E-8	1.51E-6	3.40E-9	-4.86E-6	9.39E-6
EP-m	kg N eq	4.57E-4	1.03E-4	4.25E-5	6.03E-4	1.88E-5	8.36E-5	1.69E-6	-2.17E-4	4.91E-4
EP-T	mol N eq	5.17E-3	1.15E-3	4.66E-4	6.78E-3	2.07E-4	9.21E-4	1.06E-5	-2.40E-3	5.52E-3
POCP	kg NMVOC eq	2.35E-3	3.09E-4	1.30E-4	2.79E-3	5.93E-5	2.91E-4	3.97E-6	-1.11E-3	2.03E-3
ADP-mm	kg Sb eq	1.40E-5	5.78E-7	5.09E-7	1.51E-5	2.39E-7	1.13E-6	2.62E-9	-2.84E-6	1.36E-5
ADP-f	MJ	2.61E+1	4.10E-1	1.68E-1	2.67E+1	1.42E-1	9.05E-1	7.97E-3	-1.36E+1	1.41E+1
WDP	m3 depriv.	5.18E-1	1.25E-3	1.08E-1	6.28E-1	4.35E-4	1.77E-2	4.03E-5	-2.35E-1	4.11E-1
PM	disease inc.	2.44E-8	2.10E-9	2.42E-9	2.89E-8	8.33E-10	4.71E-9	5.48E-11	-1.03E-8	2.42E-8
IR	kBq U-235 eq	1.52E-2	1.73E-3	5.00E-4	1.74E-2	6.19E-4	2.73E-3	3.70E-5	-6.24E-3	1.45E-2
ETP-fw	CTUe	4.71E+0	3.40E-1	4.69E-1	5.52E+0	1.15E-1	1.03E+0	6.67E-3	-1.80E+0	4.87E+0
HTP-c	CTUh	2.51E-10	1.30E-11	1.85E-11	2.82E-10	4.10E-12	1.24E-10	1.95E-13	-7.23E-11	3.38E-10
HTP-nc	CTUh	5.84E-9	3.54E-10	5.05E-10	6.70E-9	1.37E-10	1.53E-9	4.29E-12	-1.33E-9	7.05E-9
SQP	Pt	1.07E+0	2.85E-1	2.21E-2	1.38E+0	1.21E-1	7.25E-1	2.05E-2	-3.71E-1	1.88E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.63E-1	4.53E-3	1.06E+0	1.63E+0	2.03E-3	4.47E-2	3.08E-4	-1.67E-1	1.51E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.63E-1	4.53E-3	1.06E+0	1.63E+0	2.03E-3	4.47E-2	3.08E-4	-1.67E-1	1.51E+0
PENRE	MJ	2.80E+1	4.35E-1	1.79E-1	2.86E+1	1.50E-1	9.64E-1	8.46E-3	-1.47E+1	1.50E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.80E+1	4.35E-1	1.79E-1	2.86E+1	1.50E-1	9.64E-1	8.46E-3	-1.47E+1	1.50E+1
PET	MJ	2.86E+1	4.39E-1	1.24E+0	3.03E+1	1.52E-1	1.01E+0	8.76E-3	-1.49E+1	1.66E+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	8.03E-3	4.29E-5	2.58E-3	1.06E-2	1.60E-5	5.22E-4	9.82E-6	-3.52E-3	7.67E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.09E-6	8.81E-7	2.56E-7	5.23E-6	3.62E-7	1.48E-6	9.60E-9	-3.67E-6	3.41E-6
NHWD	kg	3.53E-2	2.01E-2	7.85E-4	5.62E-2	8.78E-3	4.49E-2	3.51E-2	-1.08E-2	1.34E-1
RWD	kg	1.37E-5	2.73E-6	7.12E-7	1.71E-5	9.64E-7	3.47E-6	5.20E-8	-5.66E-6	1.59E-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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