

Environmental Profile

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

Ecochain v3.5.64



Product: 3061971 - Wafix PP Pipe GY 160 L=3 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 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	1.50E+1	5.90E-1	4.98E-1	1.60E+1	1.94E-1	5.63E+0	9.14E-2	-9.03E+0	1.29E+1
GWP-f	kg CO2 eq	1.49E+1	5.90E-1	3.61E-1	1.58E+1	1.94E-1	5.63E+0	9.14E-2	-9.00E+0	1.28E+1
GWP-b	kg CO2 eq	7.02E-2	1.64E-4	9.49E-2	1.65E-1	1.18E-4	-7.81E-3	7.96E-5	-3.12E-2	1.26E-1
GWP-luluc	kg CO2 eq	3.91E-3	2.56E-4	4.20E-2	4.61E-2	6.86E-5	1.09E-3	1.55E-6	-1.72E-3	4.56E-2
ODP	kg CFC11 eq	2.89E-7	1.27E-7	4.09E-8	4.56E-7	4.47E-8	1.42E-7	2.29E-9	-3.32E-7	3.13E-7
AP	mol H+ eq	5.32E-2	7.67E-3	3.06E-3	6.39E-2	1.10E-3	5.96E-3	5.46E-5	-2.53E-2	4.57E-2
EP-fw	kg P eq	2.21E-4	4.96E-6	6.66E-6	2.33E-4	1.60E-6	3.14E-5	7.12E-8	-9.98E-5	1.66E-4
EP-m	kg N eq	8.85E-3	2.17E-3	9.06E-4	1.19E-2	3.95E-4	1.73E-3	3.56E-5	-4.48E-3	9.61E-3
EP-T	mol N eq	9.98E-2	2.41E-2	9.94E-3	1.34E-1	4.35E-3	1.91E-2	2.22E-4	-4.95E-2	1.08E-1
POCP	kg NMVOC eq	4.61E-2	6.47E-3	2.76E-3	5.53E-2	1.24E-3	6.03E-3	8.33E-5	-2.29E-2	3.97E-2
ADP-mm	kg Sb eq	2.26E-4	1.20E-5	1.09E-5	2.49E-4	5.02E-6	2.36E-5	5.51E-8	-5.96E-5	2.18E-4
ADP-f	MJ	5.29E+2	8.53E+0	3.59E+0	5.41E+2	2.98E+0	1.89E+1	1.67E-1	-2.84E+2	2.79E+2
WDP	m3 depriv.	1.04E+1	2.60E-2	2.31E+0	1.28E+1	9.13E-3	3.71E-1	8.34E-4	-4.92E+0	8.22E+0
PM	disease inc.	4.68E-7	4.36E-8	5.16E-8	5.64E-7	1.75E-8	9.81E-8	1.15E-9	-2.13E-7	4.68E-7
IR	kBq U-235 eq	2.78E-1	3.60E-2	1.07E-2	3.25E-1	1.30E-2	5.70E-2	7.76E-4	-1.31E-1	2.64E-1
ETP-fw	CTUe	8.15E+1	7.08E+0	1.00E+1	9.86E+1	2.42E+0	2.13E+1	1.40E-1	-3.58E+1	8.67E+1
HTP-c	CTUh	3.88E-9	2.71E-10	3.95E-10	4.55E-9	8.60E-11	2.57E-9	4.08E-12	-1.50E-9	5.70E-9
HTP-nc	CTUh	1.02E-7	7.35E-9	1.08E-8	1.20E-7	2.88E-9	3.18E-8	9.01E-11	-3.80E-8	1.16E-7
SQP	Pt	1.90E+1	5.92E+0	4.71E-1	2.54E+1	2.55E+0	1.51E+1	4.29E-1	-7.64E+0	3.59E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.04E+1	9.42E-2	2.26E+1	3.31E+1	4.27E-2	9.33E-1	6.48E-3	-3.52E+0	3.06E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.04E+1	9.42E-2	2.26E+1	3.31E+1	4.27E-2	9.33E-1	6.48E-3	-3.52E+0	3.06E+1
PENRE	MJ	5.67E+2	9.06E+0	3.81E+0	5.80E+2	3.16E+0	2.01E+1	1.78E-1	-3.06E+2	2.98E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.67E+2	9.06E+0	3.81E+0	5.80E+2	3.16E+0	2.01E+1	1.78E-1	-3.06E+2	2.98E+2
PET	MJ	5.78E+2	9.15E+0	2.64E+1	6.13E+2	3.20E+0	2.11E+1	1.84E-1	-3.09E+2	3.29E+2
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	1.57E-1	8.90E-4	5.49E-2	2.13E-1	3.37E-4	1.09E-2	2.06E-4	-7.36E-2	1.50E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.67E-5	1.83E-5	5.46E-6	9.04E-5	7.61E-6	3.07E-5	2.02E-7	-6.79E-5	6.11E-5
NHWD	kg	6.12E-1	4.18E-1	1.67E-2	1.05E+0	1.84E-1	9.27E-1	7.37E-1	-2.20E-1	2.68E+0
RWD	kg	2.45E-4	5.68E-5	1.52E-5	3.17E-4	2.02E-5	7.22E-5	1.09E-6	-1.18E-4	2.92E-4
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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