

Environmental Profile

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

Ecochain v3.5.64



Product: 3061972 - Wafix PP Pipe GY 160 L=6 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	2.91E+1	1.14E+0	9.94E-1	3.12E+1	3.79E-1	1.10E+1	1.78E-1	-1.76E+1	2.51E+1
GWP-f	kg CO2 eq	2.90E+1	1.14E+0	7.21E-1	3.08E+1	3.78E-1	1.10E+1	1.78E-1	-1.76E+1	2.48E+1
GWP-b	kg CO2 eq	1.35E-1	3.09E-4	1.90E-1	3.24E-1	2.30E-4	-1.53E-2	1.55E-4	-6.10E-2	2.49E-1
GWP-luluc	kg CO2 eq	7.56E-3	4.97E-4	8.38E-2	9.18E-2	1.34E-4	2.13E-3	3.03E-6	-3.36E-3	9.07E-2
ODP	kg CFC11 eq	5.39E-7	2.45E-7	8.16E-8	8.66E-7	8.72E-8	2.77E-7	4.47E-9	-6.48E-7	5.86E-7
AP	mol H+ eq	1.03E-1	1.51E-2	6.10E-3	1.24E-1	2.16E-3	1.16E-2	1.07E-4	-4.95E-2	8.88E-2
EP-fw	kg P eq	4.29E-4	9.49E-6	1.33E-5	4.51E-4	3.11E-6	6.14E-5	1.39E-7	-1.95E-4	3.21E-4
EP-m	kg N eq	1.71E-2	4.25E-3	1.81E-3	2.32E-2	7.71E-4	3.38E-3	6.95E-5	-8.74E-3	1.87E-2
EP-T	mol N eq	1.93E-1	4.71E-2	1.98E-2	2.60E-1	8.50E-3	3.72E-2	4.33E-4	-9.67E-2	2.10E-1
POCP	kg NMVOC eq	8.95E-2	1.27E-2	5.51E-3	1.08E-1	2.43E-3	1.18E-2	1.63E-4	-4.48E-2	7.72E-2
ADP-mm	kg Sb eq	4.15E-4	2.29E-5	2.17E-5	4.59E-4	9.79E-6	4.61E-5	1.07E-7	-1.16E-4	3.99E-4
ADP-f	MJ	1.03E+3	1.64E+1	7.16E+0	1.05E+3	5.81E+0	3.69E+1	3.27E-1	-5.54E+2	5.44E+2
WDP	m3 depriv.	2.03E+1	4.96E-2	4.61E+0	2.50E+1	1.78E-2	7.23E-1	1.63E-3	-9.60E+0	1.61E+1
PM	disease inc.	9.06E-7	8.33E-8	1.03E-7	1.09E-6	3.42E-8	1.92E-7	2.25E-9	-4.15E-7	9.06E-7
IR	kBq U-235 eq	5.35E-1	6.92E-2	2.13E-2	6.25E-1	2.54E-2	1.11E-1	1.51E-3	-2.56E-1	5.08E-1
ETP-fw	CTUe	1.56E+2	1.36E+1	2.00E+1	1.90E+2	4.72E+0	4.17E+1	2.73E-1	-6.99E+1	1.66E+2
HTP-c	CTUh	7.48E-9	5.24E-10	7.88E-10	8.79E-9	1.68E-10	5.01E-9	7.97E-12	-2.93E-9	1.10E-8
HTP-nc	CTUh	1.96E-7	1.41E-8	2.15E-8	2.31E-7	5.62E-9	6.20E-8	1.76E-10	-7.39E-8	2.25E-7
SQP	Pt	3.61E+1	1.13E+1	9.41E-1	4.84E+1	4.97E+0	2.95E+1	8.38E-1	-1.49E+1	6.88E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.76E+1	1.80E-1	4.52E+1	6.30E+1	8.33E-2	1.82E+0	1.27E-2	-6.86E+0	5.80E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.76E+1	1.80E-1	4.52E+1	6.30E+1	8.33E-2	1.82E+0	1.27E-2	-6.86E+0	5.80E+1
PENRE	MJ	1.11E+3	1.74E+1	7.60E+0	1.13E+3	6.17E+0	3.93E+1	3.46E-1	-5.97E+2	5.80E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.11E+3	1.74E+1	7.60E+0	1.13E+3	6.17E+0	3.93E+1	3.46E-1	-5.97E+2	5.80E+2
PET	MJ	1.12E+3	1.76E+1	5.28E+1	1.19E+3	6.25E+0	4.11E+1	3.59E-1	-6.04E+2	6.38E+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	3.05E-1	1.70E-3	1.10E-1	4.16E-1	6.57E-4	2.13E-2	4.03E-4	-1.44E-1	2.95E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.28E-4	3.50E-5	1.09E-5	1.74E-4	1.49E-5	6.00E-5	3.93E-7	-1.33E-4	1.16E-4
NHWD	kg	1.16E+0	7.95E-1	3.34E-2	1.99E+0	3.60E-1	1.81E+0	1.44E+0	-4.30E-1	5.16E+0
RWD	kg	4.67E-4	1.09E-4	3.03E-5	6.07E-4	3.95E-5	1.41E-4	2.13E-6	-2.31E-4	5.59E-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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