

Environmental Profile

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

Ecochain v3.5.64



Product: 3061964 - Wafix PP Pipe GY 110 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]

Statement of Confidentiality

This document and supporting material contain confidential and proprietary business information of Wavin - SE - Eskilstuna. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - SE - Eskilstuna.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.78E+0	1.51E-1	1.20E-1	4.05E+0	4.87E-2	1.41E+0	2.30E-2	-2.28E+0	3.26E+0
GWP-f	kg CO2 eq	3.76E+0	1.51E-1	8.71E-2	4.00E+0	4.87E-2	1.42E+0	2.30E-2	-2.27E+0	3.22E+0
GWP-b	kg CO2 eq	1.81E-2	4.34E-5	2.29E-2	4.11E-2	2.96E-5	-1.97E-3	2.00E-5	-7.77E-3	3.14E-2
GWP-luluc	kg CO2 eq	1.02E-3	6.51E-5	1.01E-2	1.12E-2	1.72E-5	2.74E-4	3.90E-7	-4.27E-4	1.11E-2
ODP	kg CFC11 eq	7.95E-8	3.26E-8	9.86E-9	1.22E-7	1.12E-8	3.57E-8	5.76E-10	-8.35E-8	8.58E-8
AP	mol H+ eq	1.36E-2	1.91E-3	7.37E-4	1.62E-2	2.77E-4	1.50E-3	1.37E-5	-6.39E-3	1.16E-2
EP-fw	kg P eq	5.76E-5	1.28E-6	1.61E-6	6.05E-5	4.01E-7	7.91E-6	1.79E-8	-2.53E-5	4.35E-5
EP-m	kg N eq	2.26E-3	5.43E-4	2.19E-4	3.03E-3	9.92E-5	4.36E-4	8.94E-6	-1.13E-3	2.44E-3
EP-T	mol N eq	2.55E-2	6.01E-3	2.40E-3	3.39E-2	1.09E-3	4.80E-3	5.57E-5	-1.25E-2	2.74E-2
POCP	kg NMVOC eq	1.17E-2	1.62E-3	6.66E-4	1.40E-2	3.13E-4	1.52E-3	2.09E-5	-5.80E-3	1.01E-2
ADP-mm	kg Sb eq	6.30E-5	3.11E-6	2.62E-6	6.88E-5	1.26E-6	5.95E-6	1.38E-8	-1.50E-5	6.10E-5
ADP-f	MJ	1.33E+2	2.19E+0	8.65E-1	1.36E+2	7.47E-1	4.76E+0	4.20E-2	-7.13E+1	7.01E+1
WDP	m3 depriv.	2.62E+0	6.72E-3	5.57E-1	3.18E+0	2.29E-3	9.31E-2	2.10E-4	-1.24E+0	2.04E+0
PM	disease inc.	1.21E-7	1.13E-8	1.24E-8	1.44E-7	4.39E-9	2.47E-8	2.89E-10	-5.38E-8	1.20E-7
IR	kBq U-235 eq	7.27E-2	9.22E-3	2.57E-3	8.45E-2	3.27E-3	1.43E-2	1.95E-4	-3.28E-2	6.95E-2
ETP-fw	CTUe	2.19E+1	1.82E+0	2.41E+0	2.61E+1	6.07E-1	5.38E+0	3.52E-2	-9.22E+0	2.29E+1
HTP-c	CTUh	1.14E-9	6.93E-11	9.53E-11	1.30E-9	2.16E-11	6.45E-10	1.02E-12	-3.78E-10	1.59E-9
HTP-nc	CTUh	2.78E-8	1.90E-9	2.60E-9	3.23E-8	7.23E-10	8.00E-9	2.26E-11	-8.16E-9	3.28E-8
SQP	Pt	5.07E+0	1.54E+0	1.14E-1	6.72E+0	6.39E-1	3.81E+0	1.08E-1	-1.93E+0	9.34E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.14E+0	2.43E-2	5.46E+0	8.62E+0	1.07E-2	2.35E-1	1.63E-3	-8.82E-1	7.98E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.14E+0	2.43E-2	5.46E+0	8.62E+0	1.07E-2	2.35E-1	1.63E-3	-8.82E-1	7.98E+0
PENRE	MJ	1.43E+2	2.32E+0	9.19E-1	1.46E+2	7.93E-1	5.07E+0	4.46E-2	-7.68E+1	7.48E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.43E+2	2.32E+0	9.19E-1	1.46E+2	7.93E-1	5.07E+0	4.46E-2	-7.68E+1	7.48E+1
PET	MJ	1.46E+2	2.35E+0	6.37E+0	1.54E+2	8.04E-1	5.30E+0	4.62E-2	-7.77E+1	8.28E+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	3.98E-2	2.30E-4	1.32E-2	5.32E-2	8.46E-5	2.74E-3	5.18E-5	-1.85E-2	3.76E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.83E-5	4.74E-6	1.32E-6	2.44E-5	1.91E-6	7.74E-6	5.06E-8	-1.79E-5	1.62E-5
NHWD	kg	1.67E-1	1.09E-1	4.04E-3	2.80E-1	4.63E-2	2.33E-1	1.85E-1	-5.61E-2	6.89E-1
RWD	kg	6.49E-5	1.46E-5	3.66E-6	8.32E-5	5.08E-6	1.82E-5	2.74E-7	-2.97E-5	7.70E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777