

Environmental Profile

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

Ecochain v3.5.64



Product: 3061975 - Wafix PP Pipe GY 32 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	6.02E-1	2.24E-2	1.85E-2	6.43E-1	7.32E-3	2.20E-1	3.45E-3	-3.47E-1	5.26E-1
GWP-f	kg CO2 eq	5.99E-1	2.24E-2	1.34E-2	6.35E-1	7.31E-3	2.20E-1	3.45E-3	-3.46E-1	5.20E-1
GWP-b	kg CO2 eq	2.55E-3	6.28E-6	3.52E-3	6.08E-3	4.44E-6	-2.97E-4	3.00E-6	-1.16E-3	4.63E-3
GWP-luluc	kg CO2 eq	1.74E-4	9.72E-6	1.56E-3	1.74E-3	2.59E-6	4.12E-5	5.86E-8	-6.38E-5	1.72E-3
ODP	kg CFC11 eq	1.39E-8	4.83E-9	1.52E-9	2.02E-8	1.68E-9	5.39E-9	8.64E-11	-1.30E-8	1.43E-8
AP	mol H+ eq	2.20E-3	2.89E-4	1.13E-4	2.60E-3	4.16E-5	2.27E-4	2.06E-6	-9.67E-4	1.90E-3
EP-fw	kg P eq	9.63E-6	1.89E-7	2.47E-7	1.01E-5	6.02E-8	1.19E-6	2.69E-9	-3.84E-6	7.48E-6
EP-m	kg N eq	3.65E-4	8.19E-5	3.36E-5	4.81E-4	1.49E-5	6.61E-5	1.34E-6	-1.71E-4	3.92E-4
EP-T	mol N eq	4.13E-3	9.08E-4	3.69E-4	5.41E-3	1.64E-4	7.28E-4	8.37E-6	-1.90E-3	4.41E-3
POCP	kg NMVOC eq	1.88E-3	2.44E-4	1.02E-4	2.22E-3	4.69E-5	2.30E-4	3.14E-6	-8.80E-4	1.62E-3
ADP-mm	kg Sb eq	1.10E-5	4.57E-7	4.03E-7	1.18E-5	1.89E-7	8.98E-7	2.08E-9	-2.25E-6	1.07E-5
ADP-f	MJ	2.08E+1	3.24E-1	1.33E-1	2.13E+1	1.12E-1	7.16E-1	6.31E-3	-1.08E+1	1.13E+1
WDP	m3 depriv.	4.15E-1	9.89E-4	8.57E-2	5.01E-1	3.44E-4	1.40E-2	3.18E-5	-1.86E-1	3.30E-1
PM	disease inc.	1.95E-8	1.66E-9	1.91E-9	2.31E-8	6.60E-10	3.73E-9	4.34E-11	-8.14E-9	1.94E-8
IR	kBq U-235 eq	1.20E-2	1.37E-3	3.96E-4	1.38E-2	4.91E-4	2.16E-3	2.93E-5	-4.94E-3	1.15E-2
ETP-fw	CTUe	3.77E+0	2.69E-1	3.71E-1	4.41E+0	9.11E-2	8.12E-1	5.28E-3	-1.42E+0	3.90E+0
HTP-c	CTUh	1.98E-10	1.03E-11	1.47E-11	2.23E-10	3.24E-12	9.81E-11	1.54E-13	-5.72E-11	2.67E-10
HTP-nc	CTUh	4.65E-9	2.80E-10	3.99E-10	5.33E-9	1.09E-10	1.21E-9	3.40E-12	-1.08E-9	5.58E-9
SQP	Pt	8.55E-1	2.26E-1	1.75E-2	1.10E+0	9.60E-2	5.74E-1	1.62E-2	-2.93E-1	1.49E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.46E-1	3.59E-3	8.39E-1	1.29E+0	1.61E-3	3.54E-2	2.44E-4	-1.33E-1	1.19E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.46E-1	3.59E-3	8.39E-1	1.29E+0	1.61E-3	3.54E-2	2.44E-4	-1.33E-1	1.19E+0
PENRE	MJ	2.23E+1	3.44E-1	1.41E-1	2.28E+1	1.19E-1	7.63E-1	6.70E-3	-1.16E+1	1.21E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.23E+1	3.44E-1	1.41E-1	2.28E+1	1.19E-1	7.63E-1	6.70E-3	-1.16E+1	1.21E+1
PET	MJ	2.28E+1	3.48E-1	9.80E-1	2.41E+1	1.21E-1	7.99E-1	6.94E-3	-1.18E+1	1.33E+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	6.42E-3	3.39E-5	2.04E-3	8.49E-3	1.27E-5	4.13E-4	7.78E-6	-2.79E-3	6.13E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.26E-6	6.97E-7	2.03E-7	4.16E-6	2.87E-7	1.17E-6	7.60E-9	-2.88E-6	2.74E-6
NHWD	kg	2.84E-2	1.59E-2	6.21E-4	4.49E-2	6.96E-3	3.55E-2	2.78E-2	-8.53E-3	1.07E-1
RWD	kg	1.08E-5	2.16E-6	5.63E-7	1.35E-5	7.63E-7	2.74E-6	4.12E-8	-4.48E-6	1.26E-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