

Environmental Profile

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

Ecochain v3.5.80



Product: 3020685 - Wafix PP End Cap 50 WT
 Unit: 1 piece
 Manufacturer: Wavin - PL -Buk - Extra products

LCA standard: EN15804+A2 (2019)
 Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
 Externally verified: Yes
 Issue date: 08-06-2023
 End of validity: 08-06-2028
 Verifier: Martijn van Hövell - SGS Search



Wafix PP is a versatile, uncomplicated solution for your indoor drainage. You can easily install the impact-resistant pipes even in frost. Their excellent chemical resistance makes them ideal for cast-in 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 - PL -Buk - Extra products (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 EN15804+A2 Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF EN15804+A2 Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF EN15804+A2 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]

Statement of Confidentiality

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.46E-2	9.92E-5	1.45E-4	2.49E-2	6.06E-4	7.81E-2	2.85E-4	-3.92E-2	6.46E-2
GWP-f	kg CO2 eq	7.38E-2	9.91E-5	1.46E-4	7.40E-2	6.05E-4	2.70E-2	2.85E-4	-4.25E-2	5.94E-2
GWP-b	kg CO2 eq	-4.92E-2	6.02E-8	-1.54E-6	-4.92E-2	3.68E-7	5.11E-2	2.47E-7	3.33E-3	5.26E-3
GWP-luluc	kg CO2 eq	8.30E-5	3.51E-8	1.49E-7	8.32E-5	2.14E-7	3.74E-6	5.06E-9	-5.69E-5	3.03E-5
ODP	kg CFC11 eq	3.25E-9	2.28E-11	8.26E-12	3.28E-9	1.40E-10	5.88E-10	7.17E-12	-3.20E-9	8.17E-10
AP	mol H+ eq	3.14E-4	5.65E-7	1.47E-6	3.16E-4	3.45E-6	2.45E-5	1.72E-7	-1.49E-4	1.96E-4
EP-fw	kg P eq	1.90E-6	8.16E-10	8.24E-9	1.91E-6	4.98E-9	1.10E-7	2.29E-10	-1.02E-6	1.01E-6
EP-m	kg N eq	6.13E-5	2.02E-7	1.55E-7	6.17E-5	1.23E-6	7.66E-6	1.10E-7	-3.21E-5	3.86E-5
EP-T	mol N eq	6.78E-4	2.23E-6	1.85E-6	6.82E-4	1.36E-5	8.45E-5	6.96E-7	-3.66E-4	4.15E-4
POCP	kg NMVOC eq	2.72E-4	6.37E-7	6.28E-7	2.74E-4	3.89E-6	2.59E-5	2.61E-7	-1.42E-4	1.62E-4
ADP-mm	kg Sb eq	1.28E-6	2.57E-9	1.97E-8	1.30E-6	1.57E-8	9.24E-8	1.75E-10	-3.44E-7	1.07E-6
ADP-f	MJ	2.15E+0	1.52E-3	1.36E-3	2.15E+0	9.29E-3	6.93E-2	5.24E-4	-1.12E+0	1.11E+0
WDP	m3 depriv.	4.53E-2	4.67E-6	5.22E-5	4.53E-2	2.85E-5	1.24E-3	3.36E-6	-2.43E-2	2.23E-2
PM	disease inc.	3.48E-9	8.95E-12	9.08E-12	3.50E-9	5.47E-11	3.84E-10	3.60E-12	-1.96E-9	1.98E-9
IR	kBq U-235 eq	1.81E-3	6.65E-6	1.02E-6	1.82E-3	4.06E-5	2.23E-4	2.42E-6	-1.03E-3	1.05E-3
ETP-fw	CTUe	1.29E+0	1.24E-3	1.21E-2	1.31E+0	7.55E-3	8.26E-2	4.39E-4	-6.39E-1	7.57E-1
HTP-c	CTUh	5.38E-11	4.40E-14	6.17E-13	5.45E-11	2.69E-13	1.10E-11	1.33E-14	-2.54E-11	4.03E-11
HTP-nc	CTUh	8.96E-10	1.47E-12	1.57E-11	9.14E-10	9.00E-12	1.24E-10	2.86E-13	-2.83E-10	7.64E-10
SQP	Pt	4.40E+0	1.30E-3	2.24E-3	4.41E+0	7.95E-3	5.46E-2	1.34E-3	-4.18E+0	2.87E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	8.78E-1	2.18E-5	2.40E-2	9.02E-1	1.33E-4	3.26E-3	1.99E-5	-6.57E-1	2.48E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	8.78E-1	2.18E-5	2.40E-2	9.02E-1	1.33E-4	3.26E-3	1.99E-5	-6.57E-1	2.48E-1
PENRE	MJ	2.30E+0	1.62E-3	1.44E-3	2.30E+0	9.87E-3	7.38E-2	5.56E-4	-1.21E+0	1.18E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.30E+0	1.62E-3	1.44E-3	2.30E+0	9.87E-3	7.38E-2	5.56E-4	-1.21E+0	1.18E+0
PET	MJ	3.18E+0	1.64E-3	2.55E-2	3.21E+0	1.00E-2	7.71E-2	5.76E-4	-1.87E+0	1.43E+0
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	8.42E-4	1.72E-7	1.46E-6	8.44E-4	1.05E-6	3.96E-5	6.43E-7	-4.51E-4	4.34E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.00E-7	3.89E-9	2.73E-13	8.04E-7	2.38E-8	1.23E-7	6.38E-10	-7.03E-7	2.48E-7
NHWD	kg	6.41E-3	9.43E-5	1.05E-6	6.50E-3	5.76E-4	3.78E-3	2.30E-3	-3.10E-3	1.01E-2
RWD	kg	1.76E-6	1.04E-8	1.10E-13	1.77E-6	6.32E-8	2.90E-7	3.41E-9	-1.05E-6	1.08E-6
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