

Environmental Profile

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

Ecochain v3.5.80



Product: 3043946 - Wafix PP End Cap 110 GY Special
 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	3.12E-1	1.54E-3	1.45E-4	3.13E-1	2.45E-3	2.87E-1	1.42E-3	-1.65E-1	4.39E-1
GWP-f	kg CO2 eq	3.64E-1	1.54E-3	1.46E-4	3.65E-1	2.45E-3	2.32E-1	1.42E-3	-1.77E-1	4.24E-1
GWP-b	kg CO2 eq	-5.22E-2	9.35E-7	-1.54E-6	-5.22E-2	1.49E-6	5.57E-2	1.32E-6	1.20E-2	1.55E-2
GWP-luluc	kg CO2 eq	3.18E-4	5.45E-7	1.49E-7	3.19E-4	8.67E-7	1.18E-5	2.58E-8	-1.38E-4	1.93E-4
ODP	kg CFC11 eq	4.31E-8	3.55E-10	8.26E-12	4.35E-8	5.64E-10	2.00E-9	3.70E-11	-1.45E-8	3.16E-8
AP	mol H+ eq	1.73E-3	8.77E-6	1.47E-6	1.74E-3	1.40E-5	9.23E-5	8.99E-7	-4.20E-4	1.42E-3
EP-fw	kg P eq	1.02E-5	1.27E-8	8.24E-9	1.03E-5	2.02E-8	3.58E-7	1.18E-9	-2.69E-6	7.95E-6
EP-m	kg N eq	2.97E-4	3.14E-6	1.55E-7	3.00E-4	4.99E-6	3.01E-5	1.09E-6	-8.94E-5	2.47E-4
EP-T	mol N eq	3.32E-3	3.46E-5	1.85E-6	3.36E-3	5.50E-5	3.32E-4	3.62E-6	-1.01E-3	2.74E-3
POCP	kg NMVOC eq	1.42E-3	9.88E-6	6.28E-7	1.43E-3	1.57E-5	9.69E-5	1.34E-6	-3.89E-4	1.15E-3
ADP-mm	kg Sb eq	5.96E-5	3.98E-8	1.97E-8	5.96E-5	6.34E-8	2.92E-7	8.94E-10	-2.63E-6	5.73E-5
ADP-f	MJ	1.06E+1	2.36E-2	1.36E-3	1.06E+1	3.76E-2	2.24E-1	2.71E-3	-4.22E+0	6.65E+0
WDP	m3 depriv.	2.29E-1	7.25E-5	5.22E-5	2.29E-1	1.15E-4	5.42E-3	1.34E-5	-7.28E-2	1.62E-1
PM	disease inc.	1.89E-8	1.39E-10	9.08E-12	1.90E-8	2.21E-10	1.23E-9	1.86E-11	-4.58E-9	1.59E-8
IR	kBq U-235 eq	1.77E-2	1.03E-4	1.02E-6	1.78E-2	1.64E-4	6.99E-4	1.28E-5	-3.20E-3	1.55E-2
ETP-fw	CTUe	7.02E+0	1.92E-2	1.21E-2	7.05E+0	3.05E-2	4.79E-1	3.82E-3	-1.75E+0	5.81E+0
HTP-c	CTUh	1.93E-10	6.83E-13	6.17E-13	1.94E-10	1.09E-12	3.32E-11	6.90E-14	-4.71E-11	1.81E-10
HTP-nc	CTUh	4.35E-9	2.29E-11	1.57E-11	4.39E-9	3.64E-11	4.68E-10	1.84E-12	-7.94E-10	4.10E-9
SQP	Pt	6.00E+0	2.02E-2	2.24E-3	6.03E+0	3.22E-2	1.68E-1	6.93E-3	-5.98E+0	2.52E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.06E+0	3.39E-4	2.40E-2	2.08E+0	5.39E-4	1.06E-2	1.14E-4	-9.95E-1	1.10E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.06E+0	3.39E-4	2.40E-2	2.08E+0	5.39E-4	1.06E-2	1.14E-4	-9.95E-1	1.10E+0
PENRE	MJ	1.13E+1	2.51E-2	1.44E-3	1.13E+1	3.99E-2	2.39E-1	2.88E-3	-4.58E+0	7.04E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.13E+1	2.51E-2	1.44E-3	1.13E+1	3.99E-2	2.39E-1	2.88E-3	-4.58E+0	7.04E+0
PET	MJ	1.34E+1	2.54E-2	2.55E-2	1.34E+1	4.05E-2	2.49E-1	2.99E-3	-5.57E+0	8.14E+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	4.92E-3	2.67E-6	1.46E-6	4.92E-3	4.25E-6	3.01E-4	3.36E-6	-1.39E-3	3.84E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.11E-6	6.04E-8	2.73E-13	4.17E-6	9.62E-8	4.76E-7	3.26E-9	-2.75E-6	1.99E-6
NHWD	kg	2.85E-2	1.46E-3	1.05E-6	3.00E-2	2.33E-3	1.48E-2	1.19E-2	-6.00E-3	5.31E-2
RWD	kg	2.17E-5	1.61E-7	1.10E-13	2.19E-5	2.56E-7	9.00E-7	1.78E-8	-3.39E-6	1.97E-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



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