

Environmental Profile

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

Ecochain v3.5.80



Product: 3043865 - Wafix PP Branch 88° GY 50x50x50 S/S/S
 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	1.04E-1	1.41E-3	1.45E-4	1.06E-1	1.89E-3	1.69E-1	8.88E-4	-9.94E-2	1.79E-1
GWP-f	kg CO2 eq	2.01E-1	1.41E-3	1.46E-4	2.02E-1	1.88E-3	6.48E-2	8.89E-4	-1.15E-1	1.56E-1
GWP-b	kg CO2 eq	-9.67E-2	8.58E-7	-1.54E-6	-9.67E-2	1.14E-6	1.04E-1	7.73E-7	1.53E-2	2.30E-2
GWP-luluc	kg CO2 eq	1.98E-4	5.00E-7	1.49E-7	1.99E-4	6.67E-7	1.14E-5	1.52E-8	-1.72E-4	3.90E-5
ODP	kg CFC11 eq	1.10E-8	3.26E-10	8.26E-12	1.13E-8	4.34E-10	1.73E-9	2.23E-11	-6.97E-9	6.52E-9
AP	mol H+ eq	8.40E-4	8.05E-6	1.47E-6	8.50E-4	1.07E-5	7.12E-5	5.32E-7	-4.14E-4	5.19E-4
EP-fw	kg P eq	4.80E-6	1.16E-8	8.24E-9	4.82E-6	1.55E-8	3.34E-7	6.95E-10	-2.99E-6	2.17E-6
EP-m	kg N eq	1.63E-4	2.88E-6	1.55E-7	1.66E-4	3.84E-6	2.19E-5	3.46E-7	-8.58E-5	1.06E-4
EP-T	mol N eq	1.80E-3	3.18E-5	1.85E-6	1.83E-3	4.23E-5	2.41E-4	2.16E-6	-9.76E-4	1.14E-3
POCP	kg NMVOC eq	7.20E-4	9.08E-6	6.28E-7	7.30E-4	1.21E-5	7.46E-5	8.10E-7	-3.80E-4	4.37E-4
ADP-mm	kg Sb eq	7.54E-6	3.66E-8	1.97E-8	7.59E-6	4.88E-8	2.78E-7	5.36E-10	-9.23E-7	7.00E-6
ADP-f	MJ	6.07E+0	2.17E-2	1.36E-3	6.09E+0	2.89E-2	2.08E-1	1.63E-3	-3.21E+0	3.12E+0
WDP	m3 depriv.	1.24E-1	6.66E-5	5.22E-5	1.24E-1	8.88E-5	3.79E-3	8.40E-6	-7.51E-2	5.27E-2
PM	disease inc.	9.29E-9	1.28E-10	9.08E-12	9.42E-9	1.70E-10	1.14E-9	1.12E-11	-5.34E-9	5.40E-9
IR	kBq U-235 eq	5.62E-3	9.49E-5	1.02E-6	5.72E-3	1.26E-4	6.63E-4	7.54E-6	-2.91E-3	3.60E-3
ETP-fw	CTUe	3.81E+0	1.76E-2	1.21E-2	3.84E+0	2.35E-2	2.47E-1	1.36E-3	-1.95E+0	2.17E+0
HTP-c	CTUh	1.25E-10	6.27E-13	6.17E-13	1.26E-10	8.36E-13	2.99E-11	3.99E-14	-5.95E-11	9.72E-11
HTP-nc	CTUh	2.23E-9	2.10E-11	1.57E-11	2.27E-9	2.80E-11	3.56E-10	8.77E-13	-8.37E-10	1.82E-9
SQP	Pt	9.15E+0	1.86E-2	2.24E-3	9.17E+0	2.48E-2	1.63E-1	4.17E-3	-9.72E+0	-3.62E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.79E+0	3.11E-4	2.40E-2	1.81E+0	4.15E-4	9.86E-3	6.29E-5	-1.57E+0	2.53E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.79E+0	3.11E-4	2.40E-2	1.81E+0	4.15E-4	9.86E-3	6.29E-5	-1.57E+0	2.53E-1
PENRE	MJ	6.51E+0	2.30E-2	1.44E-3	6.53E+0	3.07E-2	2.22E-1	1.73E-3	-3.45E+0	3.33E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.51E+0	2.30E-2	1.44E-3	6.53E+0	3.07E-2	2.22E-1	1.73E-3	-3.45E+0	3.33E+0
PET	MJ	8.29E+0	2.34E-2	2.55E-2	8.34E+0	3.11E-2	2.32E-1	1.79E-3	-5.02E+0	3.59E+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	2.24E-3	2.46E-6	1.46E-6	2.25E-3	3.27E-6	1.17E-4	2.01E-6	-1.43E-3	9.43E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.15E-6	5.55E-8	2.73E-13	2.21E-6	7.40E-8	3.63E-7	1.96E-9	-1.60E-6	1.05E-6
NHWD	kg	1.72E-2	1.35E-3	1.05E-6	1.86E-2	1.79E-3	1.05E-2	7.17E-3	-7.34E-3	3.07E-2
RWD	kg	5.84E-6	1.48E-7	1.10E-13	5.98E-6	1.97E-7	8.58E-7	1.06E-8	-2.87E-6	4.18E-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



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