Environmental Profile

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

Ecochain v3.5.80

Product:	3043819 - Wafix PP Bend GY 50x40x32 Trap
Unit:	1 piece
Manufacturer:	Wavin - PL -Buk - Extra products

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.

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

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

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	6.21E-2	3.11E-4	1.45E-4	6.26E-2	1.42E-3	1.57E-1	6.70E-4	-7.98E-2	1.42E-1
GWP-f	kg CO2 eq	1.60E-1	3.10E-4	1.46E-4	1.61E-1	1.42E-3	5.15E-2	6.70E-4	-9.28E-2	1.21E-1
GWP-b	kg CO2 eq	-9.81E-2	1.88E-7	-1.54E-6	-9.81E-2	8.63E-7	1.05E-1	5.83E-7	1.31E-2	2.03E-2
GWP-luluc	kg CO2 eq	2.04E-4	1.10E-7	1.49E-7	2.04E-4	5.03E-7	8.77E-6	1.15E-8	-1.62E-4	5.19E-5
ODP	kg CFC11 eq	7.19E-9	7.15E-11	8.26E-12	7.27E-9	3.28E-10	1.40E-9	1.68E-11	-6.15E-9	2.87E-9
AP	mol H+ eq	6.72E-4	1.77E-6	1.47E-6	6.75E-4	8.10E-6	5.73E-5	4.01E-7	-3.51E-4	3.90E-4
EP-fw	kg P eq	4.16E-6	2.55E-9	8.24E-9	4.17E-6	1.17E-8	2.60E-7	5.26E-10	-2.69E-6	1.75E-6
EP-m	kg N eq	1.35E-4	6.33E-7	1.55E-7	1.36E-4	2.90E-6	1.78E-5	2.60E-7	-7.47E-5	8.25E-5
EP-T	mol N eq	1.47E-3	6.97E-6	1.85E-6	1.48E-3	3.19E-5	1.96E-4	1.63E-6	-8.53E-4	8.59E-4
POCP	kg NMVOC eq	5.79E-4	1.99E-6	6.28E-7	5.81E-4	9.13E-6	6.06E-5	6.11E-7	-3.24E-4	3.27E-4
ADP-mm	kg Sb eq	2.63E-6	8.03E-9	1.97E-8	2.66E-6	3.68E-8	2.22E-7	4.06E-10	-7.79E-7	2.14E-6
ADP-f	MJ	4.73E+0	4.76E-3	1.36E-3	4.73E+0	2.18E-2	1.64E-1	1.23E-3	-2.52E+0	2.40E+0
WDP	m3 depriv.	9.62E-2	1.46E-5	5.22E-5	9.62E-2	6.70E-5	2.91E-3	6.58E-6	-6.22E-2	3.70E-2
PM	disease inc.	7.59E-9	2.80E-11	9.08E-12	7.63E-9	1.28E-10	9.09E-10	8.44E-12	-4.78E-9	3.90E-9
IR	kBq U-235 eq	3.90E-3	2.08E-5	1.02E-6	3.93E-3	9.54E-5	5.29E-4	5.69E-6	-2.55E-3	2.00E-3
ETP-fw	CTUe	3.38E+0	3.87E-3	1.21E-2	3.40E+0	1.77E-2	1.97E-1	1.03E-3	-1.81E+0	1.81E+0
HTP-c	CTUh	1.13E-10	1.38E-13	6.17E-13	1.14E-10	6.30E-13	2.39E-11	3.03E-14	-5.56E-11	8.32E-11
HTP-nc	CTUh	1.95E-9	4.61E-12	1.57E-11	1.98E-9	2.11E-11	2.81E-10	6.63E-13	-7.23E-10	1.56E-9
SQP	Pt	9.07E+0	4.08E-3	2.24E-3	9.08E+0	1.87E-2	1.28E-1	3.15E-3	-9.58E+0	-3.56E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.94E+0	6.84E-5	2.40E-2	1.97E+0	3.13E-4	7.65E-3	4.73E-5	-1.54E+0	4.36E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.94E+0	6.84E-5	2.40E-2	1.97E+0	3.13E-4	7.65E-3	4.73E-5	-1.54E+0	4.36E-1
PENRE	MJ	5.07E+0	5.06E-3	1.44E-3	5.08E+0	2.32E-2	1.74E-1	1.30E-3	-2.72E+0	2.56E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.07E+0	5.06E-3	1.44E-3	5.08E+0	2.32E-2	1.74E-1	1.30E-3	-2.72E+0	2.56E+0
PET	MJ	7.02E+0	5.13E-3	2.55E-2	7.05E+0	2.35E-2	1.82E-1	1.35E-3	-4.25E+0	3.00E+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	1.74E-3	5.39E-7	1.46E-6	1.74E-3	2.47E-6	9.14E-5	1.51E-6	-1.22E-3	6.22E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.72E-6	1.22E-8	2.73E-13	1.73E-6	5.58E-8	2.91E-7	1.48E-9	-1.44E-6	6.41E-7
NHWD	kg	1.35E-2	2.95E-4	1.05E-6	1.38E-2	1.35E-3	8.35E-3	5.41E-3	-6.88E-3	2.20E-2
RWD	kg	3.82E-6	3.24E-8	1.10E-13	3.86E-6	1.48E-7	6.89E-7	8.01E-9	-2.55E-6	2.15E-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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