

Environmental Profile

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

Ecochain v3.5.80



Product: 3031199 - Wafix PP Branch 88° BK 50x50x40 S/S/S
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					Use stage							End-of-Life stage				
A1 Raw material supply A2 Transport A3 Manufacturing					B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment B6 Operational energy use B7 Operational water use							C1 De-construction demolition C2 Transport C3 Waste processing C4 Disposal				
Construction process stage												Benefits and loads beyond the system boundaries				
A4 Transport gate to site A5 Assembly / Construction installation process												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	1.44E-1	1.44E-3	1.45E-4	1.45E-1	2.23E-3	1.85E-1	1.05E-3	-1.20E-1	2.14E-1
GWP-f	kg CO2 eq	2.42E-1	1.44E-3	1.46E-4	2.44E-1	2.23E-3	7.84E-2	1.05E-3	-1.33E-1	1.93E-1
GWP-b	kg CO2 eq	-9.86E-2	8.75E-7	-1.54E-6	-9.86E-2	1.35E-6	1.06E-1	9.14E-7	1.32E-2	2.09E-2
GWP-luluc	kg CO2 eq	2.55E-4	5.10E-7	1.49E-7	2.55E-4	7.88E-7	1.33E-5	1.79E-8	-1.75E-4	9.43E-5
ODP	kg CFC11 eq	1.45E-8	3.32E-10	8.26E-12	1.48E-8	5.13E-10	2.02E-9	2.63E-11	-7.83E-9	9.56E-9
AP	mol H+ eq	1.04E-3	8.20E-6	1.47E-6	1.05E-3	1.27E-5	8.32E-5	6.28E-7	-4.62E-4	6.82E-4
EP-fw	kg P eq	6.07E-6	1.19E-8	8.24E-9	6.09E-6	1.83E-8	3.93E-7	8.20E-10	-3.18E-6	3.32E-6
EP-m	kg N eq	1.94E-4	2.94E-6	1.55E-7	1.97E-4	4.54E-6	2.55E-5	4.09E-7	-9.49E-5	1.33E-4
EP-T	mol N eq	2.14E-3	3.24E-5	1.85E-6	2.17E-3	5.00E-5	2.81E-4	2.55E-6	-1.08E-3	1.43E-3
POCP	kg NMVOC eq	8.64E-4	9.25E-6	6.28E-7	8.74E-4	1.43E-5	8.71E-5	9.57E-7	-4.24E-4	5.52E-4
ADP-mm	kg Sb eq	1.02E-5	3.73E-8	1.97E-8	1.03E-5	5.76E-8	3.24E-7	6.33E-10	-1.03E-6	9.65E-6
ADP-f	MJ	7.34E+0	2.21E-2	1.36E-3	7.37E+0	3.42E-2	2.44E-1	1.92E-3	-3.75E+0	3.90E+0
WDP	m3 depriv.	1.50E-1	6.78E-5	5.22E-5	1.50E-1	1.05E-4	4.47E-3	9.75E-6	-8.40E-2	7.08E-2
PM	disease inc.	1.12E-8	1.30E-10	9.08E-12	1.14E-8	2.01E-10	1.33E-9	1.32E-11	-5.75E-9	7.16E-9
IR	kBq U-235 eq	7.17E-3	9.66E-5	1.02E-6	7.27E-3	1.49E-4	7.74E-4	8.91E-6	-3.17E-3	5.03E-3
ETP-fw	CTUe	4.54E+0	1.80E-2	1.21E-2	4.57E+0	2.78E-2	2.90E-1	1.61E-3	-2.02E+0	2.86E+0
HTP-c	CTUh	1.51E-10	6.39E-13	6.17E-13	1.52E-10	9.88E-13	3.50E-11	4.70E-14	-6.25E-11	1.26E-10
HTP-nc	CTUh	2.95E-9	2.14E-11	1.57E-11	2.98E-9	3.31E-11	4.19E-10	1.04E-12	-9.21E-10	2.51E-9
SQP	Pt	9.39E+0	1.89E-2	2.24E-3	9.41E+0	2.92E-2	1.92E-1	4.93E-3	-9.78E+0	-1.43E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.52E+0	3.17E-4	2.40E-2	2.55E+0	4.90E-4	1.16E-2	7.44E-5	-1.58E+0	9.77E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.52E+0	3.17E-4	2.40E-2	2.55E+0	4.90E-4	1.16E-2	7.44E-5	-1.58E+0	9.77E-1
PENRE	MJ	7.87E+0	2.35E-2	1.44E-3	7.90E+0	3.63E-2	2.60E-1	2.04E-3	-4.04E+0	4.16E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	7.87E+0	2.35E-2	1.44E-3	7.90E+0	3.63E-2	2.60E-1	2.04E-3	-4.04E+0	4.16E+0
PET	MJ	1.04E+1	2.38E-2	2.55E-2	1.04E+1	3.68E-2	2.71E-1	2.11E-3	-5.62E+0	5.14E+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	2.76E-3	2.50E-6	1.46E-6	2.76E-3	3.87E-6	1.38E-4	2.37E-6	-1.56E-3	1.35E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.38E-6	5.65E-8	2.73E-13	2.44E-6	8.74E-8	4.24E-7	2.32E-9	-1.76E-6	1.19E-6
NHWD	kg	1.87E-2	1.37E-3	1.05E-6	2.01E-2	2.12E-3	1.24E-2	8.47E-3	-7.93E-3	3.51E-2
RWD	kg	7.67E-6	1.50E-7	1.10E-13	7.82E-6	2.32E-7	1.00E-6	1.25E-8	-3.11E-6	5.95E-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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