

Environmental Profile

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

Ecochain v3.5.80



Product: 3020630 - Wafix PP Branch 45° BK 32x32x32 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	1.39E-1	1.00E-3	1.45E-4	1.40E-1	1.30E-3	1.00E-1	6.10E-4	-7.01E-2	1.72E-1
GWP-f	kg CO2 eq	1.88E-1	9.99E-4	1.46E-4	1.90E-1	1.29E-3	4.70E-2	6.10E-4	-7.69E-2	1.62E-1
GWP-b	kg CO2 eq	-4.95E-2	6.07E-7	-1.54E-6	-4.95E-2	7.86E-7	5.31E-2	5.31E-7	6.93E-3	1.05E-2
GWP-luluc	kg CO2 eq	1.73E-4	3.54E-7	1.49E-7	1.73E-4	4.58E-7	7.74E-6	1.05E-8	-9.05E-5	9.08E-5
ODP	kg CFC11 eq	1.79E-8	2.30E-10	8.26E-12	1.82E-8	2.98E-10	1.16E-9	1.53E-11	-4.66E-9	1.50E-8
AP	mol H+ eq	8.93E-4	5.69E-6	1.47E-6	9.01E-4	7.38E-6	4.79E-5	3.66E-7	-2.59E-4	6.97E-4
EP-fw	kg P eq	5.12E-6	8.22E-9	8.24E-9	5.14E-6	1.07E-8	2.28E-7	4.80E-10	-1.73E-6	3.64E-6
EP-m	kg N eq	1.53E-4	2.04E-6	1.55E-7	1.56E-4	2.64E-6	1.46E-5	2.37E-7	-5.26E-5	1.21E-4
EP-T	mol N eq	1.75E-3	2.24E-5	1.85E-6	1.77E-3	2.91E-5	1.61E-4	1.48E-6	-5.96E-4	1.37E-3
POCP	kg NMVOC eq	6.96E-4	6.42E-6	6.28E-7	7.03E-4	8.32E-6	5.00E-5	5.57E-7	-2.38E-4	5.23E-4
ADP-mm	kg Sb eq	1.93E-5	2.59E-8	1.97E-8	1.94E-5	3.35E-8	1.86E-7	3.70E-10	-5.83E-7	1.90E-5
ADP-f	MJ	5.50E+0	1.53E-2	1.36E-3	5.52E+0	1.99E-2	1.41E-1	1.12E-3	-2.17E+0	3.52E+0
WDP	m3 depriv.	1.21E-1	4.71E-5	5.22E-5	1.21E-1	6.10E-5	2.59E-3	6.08E-6	-4.76E-2	7.58E-2
PM	disease inc.	9.49E-9	9.02E-11	9.08E-12	9.59E-9	1.17E-10	7.67E-10	7.69E-12	-3.12E-9	7.36E-9
IR	kBq U-235 eq	7.83E-3	6.71E-5	1.02E-6	7.90E-3	8.69E-5	4.45E-4	5.18E-6	-1.74E-3	6.70E-3
ETP-fw	CTUe	3.66E+0	1.25E-2	1.21E-2	3.68E+0	1.61E-2	1.67E-1	9.36E-4	-1.08E+0	2.78E+0
HTP-c	CTUh	1.24E-10	4.43E-13	6.17E-13	1.25E-10	5.74E-13	2.05E-11	2.77E-14	-3.31E-11	1.13E-10
HTP-nc	CTUh	2.57E-9	1.48E-11	1.57E-11	2.60E-9	1.92E-11	2.44E-10	6.05E-13	-4.14E-10	2.45E-9
SQP	Pt	5.06E+0	1.31E-2	2.24E-3	5.07E+0	1.70E-2	1.11E-1	2.87E-3	-4.93E+0	2.69E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.56E+0	2.20E-4	2.40E-2	1.58E+0	2.85E-4	6.72E-3	4.31E-5	-8.01E-1	7.87E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.56E+0	2.20E-4	2.40E-2	1.58E+0	2.85E-4	6.72E-3	4.31E-5	-8.01E-1	7.87E-1
PENRE	MJ	5.89E+0	1.63E-2	1.44E-3	5.91E+0	2.11E-2	1.50E-1	1.19E-3	-2.33E+0	3.75E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.89E+0	1.63E-2	1.44E-3	5.91E+0	2.11E-2	1.50E-1	1.19E-3	-2.33E+0	3.75E+0
PET	MJ	7.45E+0	1.65E-2	2.55E-2	7.49E+0	2.14E-2	1.57E-1	1.23E-3	-3.14E+0	4.54E+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	2.44E-3	1.74E-6	1.46E-6	2.45E-3	2.25E-6	7.99E-5	1.38E-6	-8.64E-4	1.67E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.24E-6	3.92E-8	2.73E-13	2.28E-6	5.08E-8	2.44E-7	1.35E-9	-1.04E-6	1.53E-6
NHWD	kg	1.73E-2	9.51E-4	1.05E-6	1.82E-2	1.23E-3	7.25E-3	4.93E-3	-4.26E-3	2.74E-2
RWD	kg	9.07E-6	1.04E-7	1.10E-13	9.18E-6	1.35E-7	5.74E-7	7.30E-9	-1.70E-6	8.19E-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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