

Environmental Profile

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

Ecochain v3.5.80



Product: 3020727 - Wafix PP Reducer BK 110x75 Short
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	2.56E-1	1.21E-3	1.45E-4	2.58E-1	4.16E-3	2.89E-1	1.96E-3	-2.12E-1	3.41E-1
GWP-f	kg CO2 eq	4.03E-1	1.21E-3	1.46E-4	4.04E-1	4.16E-3	1.32E-1	1.96E-3	-2.29E-1	3.13E-1
GWP-b	kg CO2 eq	-1.47E-1	7.36E-7	-1.54E-6	-1.47E-1	2.53E-6	1.58E-1	1.71E-6	1.73E-2	2.83E-2
GWP-luluc	kg CO2 eq	3.50E-4	4.29E-7	1.49E-7	3.50E-4	1.47E-6	2.44E-5	3.34E-8	-2.50E-4	1.26E-4
ODP	kg CFC11 eq	1.98E-8	2.79E-10	8.26E-12	2.01E-8	9.58E-10	3.55E-9	4.92E-11	-1.26E-8	1.21E-8
AP	mol H+ eq	1.61E-3	6.90E-6	1.47E-6	1.62E-3	2.37E-5	1.47E-4	1.17E-6	-7.79E-4	1.01E-3
EP-fw	kg P eq	8.70E-6	9.97E-9	8.24E-9	8.72E-6	3.42E-8	7.14E-7	1.53E-9	-4.92E-6	4.55E-6
EP-m	kg N eq	3.00E-4	2.47E-6	1.55E-7	3.03E-4	8.48E-6	4.42E-5	7.63E-7	-1.56E-4	2.00E-4
EP-T	mol N eq	3.31E-3	2.72E-5	1.85E-6	3.34E-3	9.34E-5	4.87E-4	4.76E-6	-1.77E-3	2.16E-3
POCP	kg NMVOC eq	1.38E-3	7.78E-6	6.28E-7	1.39E-3	2.67E-5	1.52E-4	1.79E-6	-7.15E-4	8.55E-4
ADP-mm	kg Sb eq	1.17E-5	3.13E-8	1.97E-8	1.17E-5	1.08E-7	5.75E-7	1.18E-9	-1.79E-6	1.06E-5
ADP-f	MJ	1.29E+1	1.86E-2	1.36E-3	1.29E+1	6.38E-2	4.40E-1	3.59E-3	-6.68E+0	6.74E+0
WDP	m3 depriv.	2.54E-1	5.71E-5	5.22E-5	2.54E-1	1.96E-4	8.21E-3	1.83E-5	-1.43E-1	1.20E-1
PM	disease inc.	1.72E-8	1.09E-10	9.08E-12	1.73E-8	3.75E-10	2.37E-9	2.47E-11	-9.19E-9	1.09E-8
IR	kBq U-235 eq	1.06E-2	8.13E-5	1.02E-6	1.07E-2	2.79E-4	1.38E-3	1.66E-5	-5.12E-3	7.25E-3
ETP-fw	CTUe	5.93E+0	1.51E-2	1.21E-2	5.95E+0	5.18E-2	5.14E-1	3.00E-3	-2.94E+0	3.58E+0
HTP-c	CTUh	2.01E-10	5.37E-13	6.17E-13	2.03E-10	1.84E-12	6.18E-11	8.79E-14	-9.81E-11	1.68E-10
HTP-nc	CTUh	3.93E-9	1.80E-11	1.57E-11	3.96E-9	6.18E-11	7.45E-10	1.94E-12	-1.60E-9	3.17E-9
SQP	Pt	1.38E+1	1.59E-2	2.24E-3	1.39E+1	5.46E-2	3.47E-1	9.21E-3	-1.42E+1	9.53E-2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.03E+0	2.67E-4	2.40E-2	3.05E+0	9.16E-4	2.11E-2	1.39E-4	-2.29E+0	7.82E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.03E+0	2.67E-4	2.40E-2	3.05E+0	9.16E-4	2.11E-2	1.39E-4	-2.29E+0	7.82E-1
PENRE	MJ	1.38E+1	1.97E-2	1.44E-3	1.38E+1	6.78E-2	4.69E-1	3.81E-3	-7.19E+0	7.19E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.38E+1	1.97E-2	1.44E-3	1.38E+1	6.78E-2	4.69E-1	3.81E-3	-7.19E+0	7.19E+0
PET	MJ	1.69E+1	2.00E-2	2.55E-2	1.69E+1	6.87E-2	4.90E-1	3.95E-3	-9.49E+0	7.98E+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	4.33E-3	2.10E-6	1.46E-6	4.33E-3	7.22E-6	2.49E-4	4.43E-6	-2.53E-3	2.06E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.48E-6	4.76E-8	2.73E-13	3.52E-6	1.63E-7	7.50E-7	4.33E-9	-2.71E-6	1.73E-6
NHWD	kg	2.70E-2	1.15E-3	1.05E-6	2.82E-2	3.96E-3	2.19E-2	1.58E-2	-1.25E-2	5.74E-2
RWD	kg	1.11E-5	1.26E-7	1.10E-13	1.12E-5	4.34E-7	1.77E-6	2.34E-8	-4.97E-6	8.49E-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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