

Environmental Profile

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

Ecochain v3.5.80



Product: 3020583 - Wafix PP Bend 88° WT 32 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	8.06E-2	7.12E-4	1.45E-4	8.14E-2	8.38E-4	8.74E-2	3.94E-4	-4.97E-2	1.20E-1
GWP-f	kg CO2 eq	1.30E-1	7.11E-4	1.46E-4	1.30E-1	8.37E-4	3.51E-2	3.94E-4	-5.58E-2	1.11E-1
GWP-b	kg CO2 eq	-4.91E-2	4.32E-7	-1.54E-6	-4.91E-2	5.08E-7	5.23E-2	3.42E-7	6.13E-3	9.33E-3
GWP-luluc	kg CO2 eq	1.29E-4	2.52E-7	1.49E-7	1.29E-4	2.96E-7	5.13E-6	6.89E-9	-7.85E-5	5.60E-5
ODP	kg CFC11 eq	8.94E-9	1.64E-10	8.26E-12	9.12E-9	1.93E-10	8.02E-10	9.91E-12	-3.88E-9	6.24E-9
AP	mol H+ eq	5.90E-4	4.05E-6	1.47E-6	5.96E-4	4.77E-6	3.33E-5	2.37E-7	-1.94E-4	4.41E-4
EP-fw	kg P eq	3.40E-6	5.85E-9	8.24E-9	3.41E-6	6.89E-9	1.52E-7	3.13E-10	-1.39E-6	2.18E-6
EP-m	kg N eq	1.07E-4	1.45E-6	1.55E-7	1.09E-4	1.71E-6	1.04E-5	1.52E-7	-4.08E-5	8.04E-5
EP-T	mol N eq	1.22E-3	1.60E-5	1.85E-6	1.23E-3	1.88E-5	1.14E-4	9.61E-7	-4.64E-4	9.03E-4
POCP	kg NMVOC eq	4.72E-4	4.57E-6	6.28E-7	4.77E-4	5.37E-6	3.51E-5	3.60E-7	-1.80E-4	3.38E-4
ADP-mm	kg Sb eq	8.03E-6	1.84E-8	1.97E-8	8.06E-6	2.17E-8	1.27E-7	2.40E-10	-4.34E-7	7.78E-6
ADP-f	MJ	3.71E+0	1.09E-2	1.36E-3	3.73E+0	1.28E-2	9.49E-2	7.24E-4	-1.50E+0	2.33E+0
WDP	m3 depriv.	8.31E-2	3.35E-5	5.22E-5	8.32E-2	3.94E-5	1.71E-3	4.27E-6	-3.43E-2	5.06E-2
PM	disease inc.	6.24E-9	6.42E-11	9.08E-12	6.31E-9	7.56E-11	5.25E-10	4.98E-12	-2.50E-9	4.42E-9
IR	kBq U-235 eq	4.22E-3	4.77E-5	1.02E-6	4.27E-3	5.62E-5	3.04E-4	3.35E-6	-1.36E-3	3.27E-3
ETP-fw	CTUe	2.44E+0	8.86E-3	1.21E-2	2.46E+0	1.04E-2	1.14E-1	6.06E-4	-9.05E-1	1.68E+0
HTP-c	CTUh	8.29E-11	3.15E-13	6.17E-13	8.38E-11	3.71E-13	1.45E-11	1.81E-14	-2.90E-11	6.98E-11
HTP-nc	CTUh	1.58E-9	1.06E-11	1.57E-11	1.61E-9	1.24E-11	1.68E-10	3.93E-13	-3.40E-10	1.45E-9
SQP	Pt	4.72E+0	9.34E-3	2.24E-3	4.73E+0	1.10E-2	7.46E-2	1.85E-3	-4.70E+0	1.18E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.49E-1	1.57E-4	2.40E-2	9.73E-1	1.84E-4	4.47E-3	2.77E-5	-7.54E-1	2.24E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.49E-1	1.57E-4	2.40E-2	9.73E-1	1.84E-4	4.47E-3	2.77E-5	-7.54E-1	2.24E-1
PENRE	MJ	3.98E+0	1.16E-2	1.44E-3	4.00E+0	1.36E-2	1.01E-1	7.68E-4	-1.62E+0	2.49E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.98E+0	1.16E-2	1.44E-3	4.00E+0	1.36E-2	1.01E-1	7.68E-4	-1.62E+0	2.49E+0
PET	MJ	4.93E+0	1.17E-2	2.55E-2	4.97E+0	1.38E-2	1.06E-1	7.96E-4	-2.37E+0	2.72E+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	1.63E-3	1.24E-6	1.46E-6	1.63E-3	1.45E-6	5.39E-5	8.90E-7	-6.47E-4	1.04E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.52E-6	2.79E-8	2.73E-13	1.54E-6	3.29E-8	1.68E-7	8.78E-10	-8.61E-7	8.85E-7
NHWD	kg	1.26E-2	6.76E-4	1.05E-6	1.33E-2	7.96E-4	5.07E-3	3.18E-3	-3.61E-3	1.87E-2
RWD	kg	4.53E-6	7.42E-8	1.10E-13	4.61E-6	8.74E-8	3.95E-7	4.72E-9	-1.36E-6	3.74E-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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