

Environmental Profile

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

Ecochain v3.5.80



Product: 3020649 - Wafix PP Branch 88° BK 50x50x50 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

This document and supporting material contain confidential and proprietary business information of Wavin - PL -Buk - Extra products. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - PL -Buk - Extra products.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.25E-1	1.41E-3	1.45E-4	1.26E-1	2.12E-3	1.78E-1	1.00E-3	-1.13E-1	1.95E-1
GWP-f	kg CO2 eq	2.23E-1	1.41E-3	1.46E-4	2.25E-1	2.12E-3	7.19E-2	1.00E-3	-1.26E-1	1.74E-1
GWP-b	kg CO2 eq	-9.85E-2	8.58E-7	-1.54E-6	-9.85E-2	1.29E-6	1.06E-1	8.71E-7	1.33E-2	2.10E-2
GWP-luluc	kg CO2 eq	2.43E-4	5.00E-7	1.49E-7	2.44E-4	7.51E-7	1.27E-5	1.70E-8	-1.74E-4	8.35E-5
ODP	kg CFC11 eq	1.37E-8	3.26E-10	8.26E-12	1.40E-8	4.89E-10	1.93E-9	2.51E-11	-7.42E-9	9.05E-9
AP	mol H+ eq	9.38E-4	8.05E-6	1.47E-6	9.48E-4	1.21E-5	7.94E-5	5.98E-7	-4.46E-4	5.93E-4
EP-fw	kg P eq	5.53E-6	1.16E-8	8.24E-9	5.55E-6	1.75E-8	3.75E-7	7.81E-10	-3.12E-6	2.82E-6
EP-m	kg N eq	1.80E-4	2.88E-6	1.55E-7	1.83E-4	4.32E-6	2.43E-5	3.89E-7	-9.19E-5	1.20E-4
EP-T	mol N eq	1.98E-3	3.18E-5	1.85E-6	2.01E-3	4.77E-5	2.68E-4	2.43E-6	-1.04E-3	1.28E-3
POCP	kg NMVOC eq	7.96E-4	9.08E-6	6.28E-7	8.06E-4	1.36E-5	8.31E-5	9.12E-7	-4.10E-4	4.94E-4
ADP-mm	kg Sb eq	9.45E-6	3.66E-8	1.97E-8	9.51E-6	5.49E-8	3.10E-7	6.03E-10	-1.00E-6	8.87E-6
ADP-f	MJ	6.82E+0	2.17E-2	1.36E-3	6.84E+0	3.26E-2	2.33E-1	1.83E-3	-3.56E+0	3.55E+0
WDP	m3 depriv.	1.38E-1	6.66E-5	5.22E-5	1.38E-1	9.99E-5	4.26E-3	9.34E-6	-8.11E-2	6.11E-2
PM	disease inc.	1.05E-8	1.28E-10	9.08E-12	1.06E-8	1.92E-10	1.27E-9	1.26E-11	-5.63E-9	6.44E-9
IR	kBq U-235 eq	6.76E-3	9.49E-5	1.02E-6	6.86E-3	1.42E-4	7.40E-4	8.49E-6	-3.09E-3	4.67E-3
ETP-fw	CTUe	4.07E+0	1.76E-2	1.21E-2	4.10E+0	2.64E-2	2.77E-1	1.53E-3	-2.00E+0	2.40E+0
HTP-c	CTUh	1.31E-10	6.27E-13	6.17E-13	1.32E-10	9.41E-13	3.32E-11	4.48E-14	-6.16E-11	1.05E-10
HTP-nc	CTUh	2.42E-9	2.10E-11	1.57E-11	2.46E-9	3.15E-11	3.98E-10	9.87E-13	-8.95E-10	1.99E-9
SQP	Pt	9.30E+0	1.86E-2	2.24E-3	9.32E+0	2.79E-2	1.83E-1	4.70E-3	-9.77E+0	-2.39E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.87E+0	3.11E-4	2.40E-2	1.89E+0	4.67E-4	1.10E-2	7.09E-5	-1.58E+0	3.24E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.87E+0	3.11E-4	2.40E-2	1.89E+0	4.67E-4	1.10E-2	7.09E-5	-1.58E+0	3.24E-1
PENRE	MJ	7.31E+0	2.30E-2	1.44E-3	7.33E+0	3.46E-2	2.48E-1	1.94E-3	-3.83E+0	3.79E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	7.31E+0	2.30E-2	1.44E-3	7.33E+0	3.46E-2	2.48E-1	1.94E-3	-3.83E+0	3.79E+0
PET	MJ	9.18E+0	2.34E-2	2.55E-2	9.23E+0	3.50E-2	2.59E-1	2.01E-3	-5.41E+0	4.11E+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	2.52E-3	2.46E-6	1.46E-6	2.52E-3	3.69E-6	1.31E-4	2.26E-6	-1.52E-3	1.15E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.32E-6	5.55E-8	2.73E-13	2.38E-6	8.33E-8	4.05E-7	2.21E-9	-1.68E-6	1.18E-6
NHWD	kg	1.80E-2	1.35E-3	1.05E-6	1.94E-2	2.02E-3	1.17E-2	8.07E-3	-7.79E-3	3.34E-2
RWD	kg	7.31E-6	1.48E-7	1.10E-13	7.46E-6	2.21E-7	9.57E-7	1.20E-8	-3.03E-6	5.62E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777