Environmental Profile

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

Ecochain v3.5.80

Product:	3020732 - Wafix PP Reducer BK 75x50 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

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
C4 Disposal

Benefits and loads beyond the system boundaries

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

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.30E-1	5.85E-4	1.45E-4	1.30E-1	1.80E-3	1.16E-1	8.46E-4	-9.25E-2	1.56E-1
GWP-f	kg CO2 eq	1.78E-1	5.84E-4	1.46E-4	1.79E-1	1.80E-3	6.17E-2	8.46E-4	-1.01E-1	1.42E-1
GWP-b	kg CO2 eq	-4.88E-2	3.55E-7	-1.54E-6	-4.88E-2	1.09E-6	5.39E-2	7.36E-7	8.84E-3	1.40E-2
GWP-luluc	kg CO2 eq	1.51E-4	2.07E-7	1.49E-7	1.51E-4	6.35E-7	1.06E-5	1.45E-8	-1.09E-4	5.33E-5
ODP	kg CFC11 eq	8.51E-9	1.35E-10	8.26E-12	8.65E-9	4.14E-10	1.55E-9	2.12E-11	-5.67E-9	4.96E-9
AP	mol H+ eq	7.23E-4	3.33E-6	1.47E-6	7.27E-4	1.02E-5	6.42E-5	5.07E-7	-3.34E-4	4.69E-4
EP-fw	kg P eq	3.97E-6	4.81E-9	8.24E-9	3.98E-6	1.48E-8	3.11E-7	6.62E-10	-2.16E-6	2.14E-6
EP-m	kg N eq	1.33E-4	1.19E-6	1.55E-7	1.34E-4	3.66E-6	1.94E-5	3.29E-7	-6.63E-5	9.15E-5
EP-T	mol N eq	1.46E-3	1.31E-5	1.85E-6	1.48E-3	4.03E-5	2.14E-4	2.06E-6	-7.49E-4	9.87E-4
POCP	kg NMVOC eq	6.08E-4	3.75E-6	6.28E-7	6.12E-4	1.15E-5	6.67E-5	7.72E-7	-3.03E-4	3.88E-4
ADP-mm	kg Sb eq	4.80E-6	1.51E-8	1.97E-8	4.83E-6	4.64E-8	2.51E-7	5.11E-10	-7.50E-7	4.38E-6
ADP-f	MJ	5.63E+0	8.97E-3	1.36E-3	5.64E+0	2.76E-2	1.91E-1	1.55E-3	-2.92E+0	2.94E+0
WDP	m3 depriv.	1.12E-1	2.75E-5	5.22E-5	1.12E-1	8.46E-5	3.56E-3	8.05E-6	-6.31E-2	5.28E-2
PM	disease inc.	7.53E-9	5.27E-11	9.08E-12	7.59E-9	1.62E-10	1.03E-9	1.07E-11	-3.86E-9	4.94E-9
IR	kBq U-235 eq	4.58E-3	3.92E-5	1.02E-6	4.62E-3	1.20E-4	5.99E-4	7.18E-6	-2.20E-3	3.15E-3
ETP-fw	CTUe	2.89E+0	7.28E-3	1.21E-2	2.91E+0	2.24E-2	2.25E-1	1.30E-3	-1.33E+0	1.83E+0
HTP-c	CTUh	1.01E-10	2.59E-13	6.17E-13	1.02E-10	7.96E-13	2.73E-11	3.80E-14	-3.82E-11	9.15E-11
HTP-nc	CTUh	2.02E-9	8.68E-12	1.57E-11	2.04E-9	2.67E-11	3.29E-10	8.36E-13	-5.63E-10	1.83E-9
SQP	Pt	4.85E+0	7.67E-3	2.24E-3	4.86E+0	2.36E-2	1.51E-1	3.98E-3	-5.31E+0	-2.69E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.46E+0	1.29E-4	2.40E-2	1.48E+0	3.95E-4	9.18E-3	5.99E-5	-8.75E-1	6.16E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.46E+0	1.29E-4	2.40E-2	1.48E+0	3.95E-4	9.18E-3	5.99E-5	-8.75E-1	6.16E-1
PENRE	MJ	6.04E+0	9.52E-3	1.44E-3	6.05E+0	2.93E-2	2.04E-1	1.64E-3	-3.14E+0	3.14E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.04E+0	9.52E-3	1.44E-3	6.05E+0	2.93E-2	2.04E-1	1.64E-3	-3.14E+0	3.14E+0
PET	MJ	7.50E+0	9.65E-3	2.55E-2	7.53E+0	2.97E-2	2.13E-1	1.70E-3	-4.02E+0	3.76E+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	1.94E-3	1.01E-6	1.46E-6	1.94E-3	3.12E-6	1.09E-4	1.91E-6	-1.13E-3	9.26E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.48E-6	2.29E-8	2.73E-13	1.51E-6	7.05E-8	3.28E-7	1.87E-9	-1.24E-6	6.71E-7
NHWD	kg	1.19E-2	5.56E-4	1.05E-6	1.24E-2	1.71E-3	9.71E-3	6.83E-3	-4.98E-3	2.57E-2
RWD	kg	4.72E-6	6.10E-8	1.10E-13	4.78E-6	1.87E-7	7.71E-7	1.01E-8	-2.12E-6	3.62E-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

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