

Environmental Profile

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

Ecochain v3.5.80



Product: 3009590 - KG Access Pipe DN150
Unit: 1 piece
Manufacturer: Wavin - PL -Buk - Extra products

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]

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	6.68E+0	8.25E-2	1.45E-4	6.76E+0	7.02E-2	2.48E+0	2.33E-2	-2.99E+0	6.34E+0
GWP-f	kg CO2 eq	6.62E+0	8.24E-2	1.46E-4	6.70E+0	7.02E-2	2.48E+0	2.33E-2	-2.98E+0	6.30E+0
GWP-b	kg CO2 eq	4.78E-2	5.01E-5	-1.54E-6	4.79E-2	4.26E-5	-2.01E-3	2.90E-5	-1.63E-2	2.97E-2
GWP-luluc	kg CO2 eq	6.11E-3	2.92E-5	1.49E-7	6.14E-3	2.48E-5	8.65E-4	6.01E-7	-1.50E-3	5.52E-3
ODP	kg CFC11 eq	3.07E-6	1.90E-8	8.26E-12	3.09E-6	1.62E-8	2.38E-7	8.52E-10	-1.48E-6	1.86E-6
AP	mol H+ eq	7.88E-2	4.70E-4	1.47E-6	7.92E-2	4.00E-4	4.08E-3	2.08E-5	-5.43E-3	7.83E-2
EP-fw	kg P eq	6.71E-4	6.79E-7	8.24E-9	6.72E-4	5.77E-7	2.90E-5	2.72E-8	-5.85E-5	6.43E-4
EP-m	kg N eq	7.41E-3	1.68E-4	1.55E-7	7.58E-3	1.43E-4	9.97E-4	1.42E-5	-1.33E-3	7.41E-3
EP-T	mol N eq	9.08E-2	1.85E-3	1.85E-6	9.26E-2	1.58E-3	1.10E-2	8.28E-5	-1.17E-2	9.35E-2
POCP	kg NMVOC eq	2.83E-2	5.29E-4	6.28E-7	2.88E-2	4.51E-4	3.27E-3	2.86E-5	-5.22E-3	2.74E-2
ADP-mm	kg Sb eq	8.72E-3	2.13E-6	1.97E-8	8.72E-3	1.82E-6	1.59E-5	2.08E-8	2.28E-3	1.10E-2
ADP-f	MJ	1.58E+2	1.27E+0	1.36E-3	1.59E+2	1.08E+0	1.09E+1	6.23E-2	-7.28E+1	9.85E+1
WDP	m3 depriv.	9.76E+0	3.88E-3	5.22E-5	9.76E+0	3.31E-3	4.38E-1	4.02E-4	-4.04E+0	6.16E+0
PM	disease inc.	3.09E-7	7.44E-9	9.08E-12	3.17E-7	6.33E-9	4.98E-8	4.29E-10	-5.01E-8	3.23E-7
IR	kBq U-235 eq	3.67E-1	5.53E-3	1.02E-6	3.73E-1	4.71E-3	3.86E-2	2.87E-4	-1.22E-1	2.94E-1
ETP-fw	CTUe	6.46E+2	1.03E+0	1.21E-2	6.47E+2	8.75E-1	8.58E+1	9.49E-1	6.88E+1	8.03E+2
HTP-c	CTUh	1.22E-8	3.66E-11	6.17E-13	1.23E-8	3.11E-11	1.22E-9	1.72E-12	8.89E-10	1.44E-8
HTP-nc	CTUh	7.39E-7	1.23E-9	1.57E-11	7.40E-7	1.04E-9	2.99E-8	1.83E-10	1.03E-7	8.74E-7
SQP	Pt	3.01E+1	1.08E+0	2.24E-3	3.12E+1	9.22E-1	6.75E+0	1.59E-1	-5.50E+0	3.35E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.59E+1	1.82E-2	2.40E-2	2.60E+1	1.55E-2	7.98E-1	2.35E-3	-2.43E+0	2.43E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.59E+1	1.82E-2	2.40E-2	2.60E+1	1.55E-2	7.98E-1	2.35E-3	-2.43E+0	2.43E+1
PENRE	MJ	1.69E+2	1.34E+0	1.44E-3	1.71E+2	1.14E+0	1.16E+1	6.61E-2	-7.86E+1	1.05E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.69E+2	1.34E+0	1.44E-3	1.71E+2	1.14E+0	1.16E+1	6.61E-2	-7.86E+1	1.05E+2
PET	MJ	1.95E+2	1.36E+0	2.55E-2	1.97E+2	1.16E+0	1.24E+1	6.84E-2	-8.10E+1	1.29E+2
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	1.21E-1	1.43E-4	1.46E-6	1.21E-1	1.22E-4	1.24E-2	7.64E-5	-3.92E-2	9.45E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.18E-3	3.24E-6	2.73E-13	1.18E-3	2.75E-6	1.80E-5	7.58E-8	2.30E-4	1.43E-3
NHWD	kg	7.70E-1	7.84E-2	1.05E-6	8.49E-1	6.68E-2	4.12E-1	2.74E-1	-1.25E-1	1.48E+0
RWD	kg	3.34E-4	8.61E-6	1.10E-13	3.42E-4	7.33E-6	4.11E-5	4.05E-7	-1.10E-4	2.81E-4
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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