

Environmental Profile

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

Ecochain v3.5.80



Product: 3009601 - KG Access Pipe DN200
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	1.03E+1	1.31E-1	1.45E-4	1.04E+1	1.12E-1	3.89E+0	3.67E-2	-4.90E+0	9.55E+0
GWP-f	kg CO2 eq	1.02E+1	1.31E-1	1.46E-4	1.03E+1	1.12E-1	3.89E+0	3.67E-2	-4.87E+0	9.49E+0
GWP-b	kg CO2 eq	7.69E-2	7.95E-5	-1.54E-6	7.69E-2	6.78E-5	-3.12E-3	4.59E-5	-2.85E-2	4.54E-2
GWP-luluc	kg CO2 eq	9.20E-3	4.63E-5	1.49E-7	9.24E-3	3.95E-5	1.38E-3	9.51E-7	-2.65E-3	8.02E-3
ODP	kg CFC11 eq	4.86E-6	3.02E-8	8.26E-12	4.89E-6	2.57E-8	3.81E-7	1.35E-9	-2.38E-6	2.92E-6
AP	mol H+ eq	9.57E-2	7.45E-4	1.47E-6	9.65E-2	6.36E-4	6.49E-3	3.29E-5	-1.22E-2	9.14E-2
EP-fw	kg P eq	8.33E-4	1.08E-6	8.24E-9	8.34E-4	9.19E-7	4.63E-5	4.30E-8	-1.24E-4	7.58E-4
EP-m	kg N eq	1.03E-2	2.67E-4	1.55E-7	1.06E-2	2.28E-4	1.58E-3	2.21E-5	-2.51E-3	9.87E-3
EP-T	mol N eq	1.22E-1	2.94E-3	1.85E-6	1.25E-1	2.51E-3	1.74E-2	1.31E-4	-2.44E-2	1.21E-1
POCP	kg NMVOC eq	3.90E-2	8.40E-4	6.28E-7	3.99E-2	7.17E-4	5.19E-3	4.52E-5	-9.60E-3	3.62E-2
ADP-mm	kg Sb eq	1.20E-2	3.39E-6	1.97E-8	1.20E-2	2.89E-6	2.53E-5	3.29E-8	2.25E-3	1.42E-2
ADP-f	MJ	2.47E+2	2.01E+0	1.36E-3	2.49E+2	1.71E+0	1.74E+1	9.86E-2	-1.18E+2	1.50E+2
WDP	m3 depriv.	1.53E+1	6.16E-3	5.22E-5	1.53E+1	5.26E-3	7.00E-1	6.36E-4	-6.59E+0	9.43E+0
PM	disease inc.	4.21E-7	1.18E-8	9.08E-12	4.33E-7	1.01E-8	7.92E-8	6.78E-10	-9.28E-8	4.30E-7
IR	kBq U-235 eq	5.62E-1	8.78E-3	1.02E-6	5.71E-1	7.49E-3	6.14E-2	4.54E-4	-2.04E-1	4.36E-1
ETP-fw	CTUe	7.36E+2	1.63E+0	1.21E-2	7.37E+2	1.39E+0	1.37E+2	1.52E+0	4.42E+1	9.22E+2
HTP-c	CTUh	1.52E-8	5.80E-11	6.17E-13	1.53E-8	4.95E-11	1.96E-9	2.72E-12	-5.02E-11	1.72E-8
HTP-nc	CTUh	8.35E-7	1.94E-9	1.57E-11	8.37E-7	1.66E-9	4.77E-8	2.93E-10	7.08E-8	9.58E-7
SQP	Pt	4.31E+1	1.72E+0	2.24E-3	4.48E+1	1.47E+0	1.07E+1	2.52E-1	-1.01E+1	4.71E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.03E+1	2.88E-2	2.40E-2	4.04E+1	2.46E-2	1.27E+0	3.71E-3	-4.28E+0	3.74E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.03E+1	2.88E-2	2.40E-2	4.04E+1	2.46E-2	1.27E+0	3.71E-3	-4.28E+0	3.74E+1
PENRE	MJ	2.65E+2	2.13E+0	1.44E-3	2.67E+2	1.82E+0	1.85E+1	1.05E-1	-1.27E+2	1.60E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.65E+2	2.13E+0	1.44E-3	2.67E+2	1.82E+0	1.85E+1	1.05E-1	-1.27E+2	1.60E+2
PET	MJ	3.05E+2	2.16E+0	2.55E-2	3.07E+2	1.84E+0	1.98E+1	1.08E-1	-1.31E+2	1.98E+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	1.85E-1	2.27E-4	1.46E-6	1.85E-1	1.94E-4	1.96E-2	1.21E-4	-6.58E-2	1.39E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.64E-3	5.14E-6	2.73E-13	1.64E-3	4.38E-6	2.86E-5	1.20E-7	1.92E-4	1.87E-3
NHWD	kg	1.11E+0	1.25E-1	1.05E-6	1.24E+0	1.06E-1	6.55E-1	4.33E-1	-2.61E-1	2.17E+0
RWD	kg	5.06E-4	1.37E-5	1.10E-13	5.20E-4	1.17E-5	6.54E-5	6.41E-7	-1.83E-4	4.15E-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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