Environmental Profile

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

Ecochain v3.5.80

Product:	3009581 - KG Access Pipe DN125
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

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	4.63E+0	5.62E-2	1.45E-4	4.69E+0	4.71E-2	1.64E+0	1.56E-2	-1.94E+0	4.45E+0
GWP-f	kg CO2 eq	4.59E+0	5.61E-2	1.46E-4	4.65E+0	4.70E-2	1.64E+0	1.56E-2	-1.93E+0	4.42E+0
GWP-b	kg CO2 eq	3.27E-2	3.41E-5	-1.54E-6	3.27E-2	2.86E-5	-1.42E-3	1.94E-5	-9.53E-3	2.18E-2
GWP-luluc	kg CO2 eq	4.32E-3	1.99E-5	1.49E-7	4.34E-3	1.66E-5	5.78E-4	4.01E-7	-8.63E-4	4.07E-3
ODP	kg CFC11 eq	2.03E-6	1.29E-8	8.26E-12	2.05E-6	1.08E-8	1.59E-7	5.69E-10	-9.76E-7	1.24E-6
AP	mol H+ eq	6.89E-2	3.20E-4	1.47E-6	6.92E-2	2.68E-4	2.74E-3	1.39E-5	-1.69E-3	7.05E-2
EP-fw	kg P eq	5.79E-4	4.62E-7	8.24E-9	5.79E-4	3.87E-7	1.94E-5	1.82E-8	-2.21E-5	5.77E-4
EP-m	kg N eq	5.75E-3	1.14E-4	1.55E-7	5.87E-3	9.59E-5	6.70E-4	9.38E-6	-6.69E-4	5.98E-3
EP-T	mol N eq	7.25E-2	1.26E-3	1.85E-6	7.38E-2	1.06E-3	7.39E-3	5.53E-5	-4.77E-3	7.75E-2
POCP	kg NMVOC eq	2.21E-2	3.60E-4	6.28E-7	2.24E-2	3.02E-4	2.20E-3	1.91E-5	-2.81E-3	2.21E-2
ADP-mm	kg Sb eq	6.83E-3	1.45E-6	1.97E-8	6.83E-3	1.22E-6	1.07E-5	1.39E-8	2.30E-3	9.14E-3
ADP-f	MJ	1.08E+2	8.62E-1	1.36E-3	1.09E+2	7.22E-1	7.33E+0	4.16E-2	-4.81E+1	6.87E+1
WDP	m3 depriv.	6.63E+0	2.64E-3	5.22E-5	6.63E+0	2.22E-3	2.91E-1	2.68E-4	-2.63E+0	4.30E+0
PM	disease inc.	2.41E-7	5.07E-9	9.08E-12	2.46E-7	4.25E-9	3.36E-8	2.86E-10	-2.67E-8	2.57E-7
IR	kBq U-235 eq	2.50E-1	3.77E-3	1.02E-6	2.53E-1	3.16E-3	2.59E-2	1.92E-4	-7.52E-2	2.07E-1
ETP-fw	CTUe	5.93E+2	7.00E-1	1.21E-2	5.94E+2	5.86E-1	5.68E+1	6.27E-1	8.26E+1	7.35E+2
HTP-c	CTUh	1.05E-8	2.49E-11	6.17E-13	1.05E-8	2.09E-11	8.21E-10	1.15E-12	1.42E-9	1.28E-8
HTP-nc	CTUh	6.83E-7	8.34E-10	1.57E-11	6.84E-7	6.99E-10	2.00E-8	1.21E-10	1.21E-7	8.26E-7
SQP	Pt	2.22E+1	7.37E-1	2.24E-3	2.29E+1	6.18E-1	4.57E+0	1.07E-1	-2.92E+0	2.53E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.75E+1	1.24E-2	2.40E-2	1.76E+1	1.04E-2	5.34E-1	1.57E-3	-1.40E+0	1.67E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.75E+1	1.24E-2	2.40E-2	1.76E+1	1.04E-2	5.34E-1	1.57E-3	-1.40E+0	1.67E+1
PENRE	MJ	1.16E+2	9.15E-1	1.44E-3	1.17E+2	7.66E-1	7.80E+0	4.41E-2	-5.20E+1	7.32E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.16E+2	9.15E-1	1.44E-3	1.17E+2	7.66E-1	7.80E+0	4.41E-2	-5.20E+1	7.32E+1
PET	MJ	1.33E+2	9.27E-1	2.55E-2	1.34E+2	7.77E-1	8.33E+0	4.57E-2	-5.34E+1	8.99E+1
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	8.43E-2	9.75E-5	1.46E-6	8.44E-2	8.17E-5	8.19E-3	5.10E-5	-2.44E-2	6.83E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.11E-4	2.20E-6	2.73E-13	9.13E-4	1.85E-6	1.21E-5	5.06E-8	2.52E-4	1.18E-3
NHWD	kg	5.70E-1	5.34E-2	1.05E-6	6.23E-1	4.47E-2	2.77E-1	1.83E-1	-4.91E-2	1.08E+0
RWD	kg	2.25E-4	5.86E-6	1.10E-13	2.31E-4	4.91E-6	2.77E-5	2.71E-7	-6.84E-5	1.95E-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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