Environmental Profile

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

Ecochain v3.5.80

Product: 4063873 - Tigris PEXc/Al/PE Pipe WT 26x3.0 L=50
Unit: 1 piece
Manufacturer: Wavin - PL - MPC

LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified: Yes
Issue date: 30-06-2023
End of validity: 30-06-2028
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 - MPC (2021). (☑ = 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	6.22E+1	1.19E+0	2.72E+0	6.61E+1	1.39E-1	2.55E+1	4.78E-1	4.67E+0	9.68E+1
GWP-f	kg CO2 eq	6.75E+1	1.19E+0	2.37E+0	7.10E+1	1.39E-1	1.93E+1	4.76E-1	3.33E+0	9.43E+1
GWP-b	kg CO2 eq	-5.46E+0	5.39E-4	3.42E-1	-5.12E+0	8.46E-5	6.16E+0	2.77E-3	1.29E+0	2.33E+0
GWP-luluc	kg CO2 eq	1.77E-1	4.41E-4	2.07E-3	1.80E-1	4.93E-5	9.89E-5	1.27E-5	5.23E-2	2.32E-1
ODP	kg CFC11 eq	2.87E-6	2.63E-7	1.35E-7	3.26E-6	3.21E-8	4.72E-8	1.41E-8	-8.20E-7	2.54E-6
AP	mol H+ eq	3.84E-1	7.28E-3	2.03E-2	4.11E-1	7.93E-4	3.24E-3	3.54E-4	8.98E-2	5.05E-1
EP-fw	kg P eq	2.17E-3	1.19E-5	1.16E-4	2.29E-3	1.15E-6	4.50E-6	5.85E-7	3.78E-4	2.68E-3
EP-m	kg N eq	6.17E-2	2.52E-3	2.36E-3	6.66E-2	2.84E-4	1.38E-3	2.16E-4	1.07E-2	7.92E-2
EP-T	mol N eq	6.88E-1	2.78E-2	2.69E-2	7.42E-1	3.13E-3	1.55E-2	1.43E-3	1.18E-1	8.80E-1
POCP	kg NMVOC eq	2.27E-1	7.89E-3	9.03E-3	2.44E-1	8.94E-4	4.27E-3	5.09E-4	3.35E-2	2.84E-1
ADP-mm	kg Sb eq	4.67E-4	2.99E-5	2.63E-4	7.59E-4	3.60E-6	4.74E-6	3.54E-7	-3.80E-3	-3.04E-3
ADP-f	MJ	1.17E+3	1.79E+1	2.09E+1	1.21E+3	2.14E+0	3.02E+0	1.07E+0	-6.66E+1	1.15E+3
WDP	m3 depriv.	2.35E+1	6.37E-2	7.52E-1	2.43E+1	6.56E-3	2.16E-2	5.63E-3	-1.22E+0	2.31E+1
PM	disease inc.	4.21E-6	1.06E-7	1.34E-7	4.45E-6	1.26E-8	3.58E-8	7.00E-9	1.06E-6	5.56E-6
IR	kBq U-235 eq	1.37E+0	7.51E-2	1.89E-2	1.46E+0	9.34E-3	1.18E-2	5.70E-3	3.79E-2	1.53E+0
ETP-fw	CTUe	1.51E+3	1.59E+1	1.65E+2	1.69E+3	1.74E+0	9.53E+0	6.50E+2	2.57E+2	2.61E+3
HTP-c	CTUh	7.04E-8	5.21E-10	8.47E-9	7.94E-8	6.18E-11	2.96E-9	4.69E-11	1.98E-8	1.02E-7
HTP-nc	CTUh	1.31E-6	1.74E-8	2.13E-7	1.55E-6	2.07E-9	2.26E-8	9.87E-10	3.38E-7	1.91E-6
SQP	Pt	6.45E+2	1.54E+1	3.09E+1	6.92E+2	1.83E+0	1.96E+0	2.52E+0	-6.18E+2	8.04E+1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.46E+2	1.20E-3	3.19E+2	4.64E+2	3.07E-2	1.13E-1	7.71E-2	-8.32E+1	3.81E+2
PERM	MJ	0	2.22E-1	0	2.22E-1	0	0	0	0	2.22E-1
PERT	MJ	1.46E+2	2.23E-1	3.19E+2	4.64E+2	3.07E-2	1.13E-1	7.71E-2	-8.32E+1	3.82E+2
PENRE	MJ	1.25E+3	1.89E-1	2.23E+1	1.27E+3	2.27E+0	3.22E+0	1.14E+0	-8.02E+1	1.20E+3
PENRM	MJ	0	1.88E+1	0	1.88E+1	0	0	0	0	1.88E+1
PENRT	MJ	1.25E+3	1.90E+1	2.23E+1	1.29E+3	2.27E+0	3.22E+0	1.14E+0	-8.02E+1	1.22E+3
PET	MJ	1.39E+3	1.93E+1	3.41E+2	1.75E+3	2.30E+0	3.33E+0	1.21E+0	-1.63E+2	1.60E+3
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	5.91E-1	2.17E-3	2.10E-2	6.14E-1	2.42E-4	3.67E-3	1.35E-3	2.53E-2	6.45E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.93E-2	4.51E-5	5.16E-6	1.93E-2	5.47E-6	1.09E-5	1.28E-6	-7.92E-3	1.14E-2
NHWD	kg	1.06E+1	1.13E+0	9.73E-2	1.19E+1	1.33E-1	2.11E-1	4.25E+0	2.78E+0	1.92E+1
RWD	kg	1.44E-3	1.18E-4	7.54E-6	1.57E-3	1.45E-5	1.62E-5	7.16E-6	4.69E-5	1.65E-3
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