

Environmental Profile

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

Ecochain v3.5.80



Product: 3031719 - Tigris PEXc/Al/PE Pipe WT 63x6.0 L=5
 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]

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.44E+1	6.31E-1	7.01E-1	3.57E+1	1.13E-1	2.12E+1	3.98E-1	2.55E+0	5.99E+1
GWP-f	kg CO2 eq	3.93E+1	6.30E-1	4.44E-1	4.04E+1	1.13E-1	1.61E+1	3.97E-1	2.55E+0	5.96E+1
GWP-b	kg CO2 eq	-5.04E+0	2.91E-4	2.56E-1	-4.78E+0	6.85E-5	5.02E+0	1.58E-3	-2.74E-2	2.10E-1
GWP-luluc	kg CO2 eq	9.42E-2	2.31E-4	2.02E-4	9.46E-2	3.99E-5	5.14E-5	9.15E-6	3.39E-2	1.29E-1
ODP	kg CFC11 eq	2.06E-6	1.39E-7	2.60E-8	2.23E-6	2.60E-8	2.35E-8	1.12E-8	-6.54E-7	1.64E-6
AP	mol H+ eq	2.25E-1	3.66E-3	1.86E-3	2.31E-1	6.43E-4	2.53E-3	2.75E-4	6.07E-2	2.95E-1
EP-fw	kg P eq	1.23E-3	6.36E-6	1.23E-5	1.25E-3	9.29E-7	2.59E-6	4.22E-7	3.17E-4	1.57E-3
EP-m	kg N eq	3.82E-2	1.29E-3	3.58E-4	3.98E-2	2.30E-4	1.13E-3	1.74E-4	7.69E-3	4.91E-2
EP-T	mol N eq	4.29E-1	1.42E-2	3.36E-3	4.47E-1	2.54E-3	1.28E-2	1.12E-3	8.23E-2	5.45E-1
POCP	kg NMVOC eq	1.38E-1	4.06E-3	1.08E-3	1.44E-1	7.25E-4	3.44E-3	4.03E-4	2.89E-2	1.77E-1
ADP-mm	kg Sb eq	3.39E-4	1.60E-5	1.94E-5	3.75E-4	2.92E-6	1.51E-6	2.75E-7	-1.96E-3	-1.58E-3
ADP-f	MJ	6.74E+2	9.51E+0	3.30E+0	6.87E+2	1.73E+0	1.48E+0	8.37E-1	4.87E+1	7.40E+2
WDP	m3 depriv.	1.43E+1	3.40E-2	9.06E-2	1.44E+1	5.32E-3	2.24E-2	4.15E-3	2.87E+0	1.73E+1
PM	disease inc.	2.67E-6	5.66E-8	1.80E-8	2.74E-6	1.02E-8	2.34E-8	5.56E-9	7.35E-7	3.52E-6
IR	kBq U-235 eq	1.05E+0	3.98E-2	4.76E-3	1.09E+0	7.57E-3	5.07E-3	4.27E-3	1.25E-1	1.23E+0
ETP-fw	CTUe	7.99E+2	8.48E+0	1.48E+1	8.22E+2	1.41E+0	5.80E+0	3.41E+2	1.92E+2	1.36E+3
HTP-c	CTUh	3.95E-8	2.75E-10	7.77E-10	4.05E-8	5.01E-11	2.58E-9	3.12E-11	1.20E-8	5.52E-8
HTP-nc	CTUh	7.47E-7	9.27E-9	1.84E-8	7.75E-7	1.68E-9	1.76E-8	6.66E-10	2.09E-7	1.00E-6
SQP	Pt	5.80E+2	8.25E+0	2.90E+0	5.91E+2	1.48E+0	9.57E-1	2.03E+0	-8.57E+1	5.09E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.11E+2	0	2.21E+1	1.33E+2	2.49E-2	6.43E-2	5.12E-2	-7.51E+0	1.26E+2
PERM	MJ	0	1.19E-1	0	1.19E-1	0	0	0	0	1.19E-1
PERT	MJ	1.11E+2	1.19E-1	2.21E+1	1.33E+2	2.49E-2	6.43E-2	5.12E-2	-7.51E+0	1.26E+2
PENRE	MJ	7.20E+2	0	3.55E+0	7.24E+2	1.84E+0	1.58E+0	8.87E-1	4.55E+1	7.74E+2
PENRM	MJ	0	1.01E+1	0	1.01E+1	0	0	0	0	1.01E+1
PENRT	MJ	7.20E+2	1.01E+1	3.55E+0	7.34E+2	1.84E+0	1.58E+0	8.87E-1	4.55E+1	7.84E+2
PET	MJ	8.32E+2	1.02E+1	2.56E+1	8.67E+2	1.86E+0	1.64E+0	9.38E-1	3.80E+1	9.10E+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	3.63E-1	1.16E-3	2.50E-3	3.66E-1	1.96E-4	3.52E-3	1.05E-3	7.67E-2	4.48E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.02E-2	2.41E-5	3.66E-6	1.03E-2	4.43E-6	6.20E-6	9.99E-7	-4.19E-3	6.08E-3
NHWD	kg	7.71E+0	6.03E-1	6.01E-2	8.37E+0	1.07E-1	2.02E-1	3.44E+0	1.67E+0	1.38E+1
RWD	kg	1.11E-3	6.24E-5	5.35E-6	1.18E-3	1.18E-5	6.51E-6	5.55E-6	1.15E-4	1.32E-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



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