

Environmental Profile

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

Ecochain v3.5.80



Product: 3018302 - Tigris PEXc/Al/PE Pipe WT 16x2.0 L=200
 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	1.11E+2	2.73E+0	1.53E+0	1.15E+2	2.32E-1	3.53E+1	7.93E-1	8.52E+0	1.60E+2
GWP-f	kg CO2 eq	1.13E+2	2.73E+0	1.01E+0	1.17E+2	2.32E-1	3.17E+1	7.90E-1	7.55E+0	1.57E+2
GWP-b	kg CO2 eq	-2.84E+0	1.23E-3	5.12E-1	-2.32E+0	1.41E-4	3.62E+0	4.66E-3	8.74E-1	2.17E+0
GWP-luluc	kg CO2 eq	2.93E-1	1.01E-3	5.30E-4	2.95E-1	8.22E-5	1.18E-4	2.11E-5	1.00E-1	3.96E-1
ODP	kg CFC11 eq	4.58E-6	6.02E-7	5.90E-8	5.24E-6	5.35E-8	5.54E-8	2.36E-8	-1.15E-6	4.23E-6
AP	mol H+ eq	6.39E-1	1.67E-2	4.97E-3	6.60E-1	1.32E-3	4.53E-3	5.91E-4	1.63E-1	8.30E-1
EP-fw	kg P eq	3.89E-3	2.73E-5	3.16E-5	3.95E-3	1.91E-6	5.75E-6	9.76E-7	7.90E-4	4.75E-3
EP-m	kg N eq	1.00E-1	5.78E-3	8.49E-4	1.07E-1	4.73E-4	1.97E-3	3.66E-4	2.11E-2	1.31E-1
EP-T	mol N eq	1.13E+0	6.37E-2	8.29E-3	1.20E+0	5.22E-3	2.23E-2	2.39E-3	2.34E-1	1.46E+0
POCP	kg NMVOC eq	3.71E-1	1.81E-2	2.70E-3	3.92E-1	1.49E-3	6.04E-3	8.49E-4	6.73E-2	4.67E-1
ADP-mm	kg Sb eq	7.31E-4	6.86E-5	5.55E-5	8.56E-4	6.01E-6	4.54E-6	5.89E-7	-6.40E-3	-5.53E-3
ADP-f	MJ	1.94E+3	4.11E+1	7.76E+0	1.99E+3	3.57E+0	3.38E+0	1.79E+0	-7.93E+1	1.92E+3
WDP	m3 depriv.	3.89E+1	1.46E-1	2.26E-1	3.93E+1	1.09E-2	2.61E-2	9.10E-3	5.84E-2	3.94E+1
PM	disease inc.	6.85E-6	2.43E-7	4.37E-8	7.14E-6	2.10E-8	4.71E-8	1.17E-8	2.02E-6	9.24E-6
IR	kBq U-235 eq	2.28E+0	1.72E-1	1.04E-2	2.46E+0	1.56E-2	1.23E-2	9.54E-3	1.87E-1	2.68E+0
ETP-fw	CTUe	2.38E+3	3.65E+1	3.98E+1	2.45E+3	2.90E+0	1.38E+1	1.10E+3	5.57E+2	4.12E+3
HTP-c	CTUh	1.16E-7	1.20E-9	2.08E-9	1.19E-7	1.03E-10	4.47E-9	7.84E-11	3.64E-8	1.60E-7
HTP-nc	CTUh	2.19E-6	3.99E-8	5.01E-8	2.28E-6	3.45E-9	3.44E-8	1.66E-9	6.15E-7	2.94E-6
SQP	Pt	5.20E+2	3.53E+1	7.69E+0	5.63E+2	3.05E+0	2.22E+0	4.21E+0	-3.72E+2	2.00E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.64E+2	2.90E-3	6.45E+1	2.28E+2	5.12E-2	1.41E-1	1.30E-1	-3.26E+1	1.96E+2
PERM	MJ	0	5.09E-1	0	5.09E-1	0	0	0	0	5.09E-1
PERT	MJ	1.64E+2	5.12E-1	6.45E+1	2.29E+2	5.12E-2	1.41E-1	1.30E-1	-3.26E+1	1.96E+2
PENRE	MJ	2.07E+3	4.58E-1	8.34E+0	2.08E+3	3.79E+0	3.61E+0	1.90E+0	-9.98E+1	1.99E+3
PENRM	MJ	0	4.32E+1	0	4.32E+1	0	0	0	0	4.32E+1
PENRT	MJ	2.07E+3	4.36E+1	8.34E+0	2.13E+3	3.79E+0	3.61E+0	1.90E+0	-9.98E+1	2.04E+3
PET	MJ	2.24E+3	4.41E+1	7.28E+1	2.35E+3	3.84E+0	3.75E+0	2.03E+0	-1.32E+2	2.23E+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	9.83E-1	4.98E-3	6.24E-3	9.94E-1	4.03E-4	5.45E-3	2.25E-3	9.92E-2	1.10E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.25E-2	1.03E-4	7.34E-6	3.26E-2	9.12E-6	1.36E-5	2.13E-6	-1.33E-2	1.93E-2
NHWD	kg	1.73E+1	2.58E+0	1.21E-1	2.00E+1	2.21E-1	2.61E-1	7.09E+0	5.03E+0	3.26E+1
RWD	kg	2.42E-3	2.70E-4	1.07E-5	2.70E-3	2.42E-5	1.62E-5	1.20E-5	2.06E-4	2.96E-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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