

Environmental Profile

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

Ecochain v3.5.80



Product: 3030909 - 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	1.12E+2	2.72E+0	1.35E+0	1.16E+2	2.32E-1	3.34E+1	7.93E-1	8.77E+0	1.59E+2
GWP-f	kg CO2 eq	1.13E+2	2.71E+0	8.54E-1	1.16E+2	2.32E-1	3.16E+1	7.90E-1	7.82E+0	1.57E+2
GWP-b	kg CO2 eq	-1.05E+0	1.23E-3	4.95E-1	-5.53E-1	1.41E-4	1.82E+0	4.66E-3	8.53E-1	2.13E+0
GWP-luluc	kg CO2 eq	2.92E-1	1.01E-3	3.85E-4	2.94E-1	8.22E-5	1.13E-4	2.11E-5	1.01E-1	3.95E-1
ODP	kg CFC11 eq	4.53E-6	5.98E-7	5.00E-8	5.18E-6	5.35E-8	5.30E-8	2.36E-8	-1.11E-6	4.19E-6
AP	mol H+ eq	6.36E-1	1.66E-2	3.54E-3	6.56E-1	1.32E-3	4.44E-3	5.91E-4	1.65E-1	8.28E-1
EP-fw	kg P eq	3.88E-3	2.72E-5	2.35E-5	3.93E-3	1.91E-6	5.57E-6	9.76E-7	8.04E-4	4.74E-3
EP-m	kg N eq	9.96E-2	5.74E-3	6.88E-4	1.06E-1	4.73E-4	1.94E-3	3.66E-4	2.16E-2	1.30E-1
EP-T	mol N eq	1.12E+0	6.34E-2	6.43E-3	1.19E+0	5.22E-3	2.19E-2	2.39E-3	2.39E-1	1.46E+0
POCP	kg NMVOC eq	3.68E-1	1.80E-2	2.08E-3	3.88E-1	1.49E-3	5.94E-3	8.49E-4	6.92E-2	4.65E-1
ADP-mm	kg Sb eq	7.21E-4	6.81E-5	3.69E-5	8.26E-4	6.01E-6	4.27E-6	5.89E-7	-6.39E-3	-5.55E-3
ADP-f	MJ	1.93E+3	4.08E+1	6.33E+0	1.98E+3	3.57E+0	3.21E+0	1.79E+0	-7.46E+1	1.91E+3
WDP	m3 depriv.	3.88E+1	1.45E-1	1.73E-1	3.91E+1	1.09E-2	2.50E-2	9.10E-3	1.55E-1	3.93E+1
PM	disease inc.	6.81E-6	2.42E-7	3.44E-8	7.08E-6	2.10E-8	4.59E-8	1.17E-8	2.05E-6	9.21E-6
IR	kBq U-235 eq	2.26E+0	1.71E-1	9.16E-3	2.44E+0	1.56E-2	1.15E-2	9.54E-3	1.99E-1	2.67E+0
ETP-fw	CTUe	2.37E+3	3.63E+1	2.82E+1	2.43E+3	2.90E+0	1.36E+1	1.10E+3	5.65E+2	4.11E+3
HTP-c	CTUh	1.15E-7	1.19E-9	1.48E-9	1.17E-7	1.03E-10	4.43E-9	7.84E-11	3.70E-8	1.59E-7
HTP-nc	CTUh	2.18E-6	3.96E-8	3.51E-8	2.26E-6	3.45E-9	3.41E-8	1.66E-9	6.21E-7	2.92E-6
SQP	Pt	3.68E+2	3.51E+1	5.52E+0	4.09E+2	3.05E+0	2.10E+0	4.21E+0	-2.43E+2	1.75E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.42E+2	2.90E-3	4.19E+1	1.84E+2	5.12E-2	1.36E-1	1.30E-1	-1.32E+1	1.71E+2
PERM	MJ	0	5.06E-1	0	5.06E-1	0	0	0	0	5.06E-1
PERT	MJ	1.42E+2	5.09E-1	4.19E+1	1.84E+2	5.12E-2	1.36E-1	1.30E-1	-1.32E+1	1.71E+2
PENRE	MJ	2.07E+3	4.58E-1	6.82E+0	2.07E+3	3.79E+0	3.43E+0	1.90E+0	-9.48E+1	1.99E+3
PENRM	MJ	0	4.29E+1	0	4.29E+1	0	0	0	0	4.29E+1
PENRT	MJ	2.07E+3	4.34E+1	6.82E+0	2.12E+3	3.79E+0	3.43E+0	1.90E+0	-9.48E+1	2.03E+3
PET	MJ	2.21E+3	4.39E+1	4.87E+1	2.30E+3	3.84E+0	3.56E+0	2.03E+0	-1.08E+2	2.20E+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	9.79E-1	4.94E-3	4.79E-3	9.89E-1	4.03E-4	5.37E-3	2.25E-3	1.02E-1	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	7.08E-6	3.26E-2	9.12E-6	1.32E-5	2.13E-6	-1.33E-2	1.93E-2
NHWD	kg	1.72E+1	2.56E+0	1.16E-1	1.99E+1	2.21E-1	2.50E-1	7.09E+0	5.11E+0	3.25E+1
RWD	kg	2.39E-3	2.68E-4	1.04E-5	2.67E-3	2.42E-5	1.51E-5	1.20E-5	2.21E-4	2.94E-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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