

Environmental Profile

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

Ecochain v3.5.80



Product: 3072990 - Tigris PEXc/Al/PE Pipe WT 25x2.5 L=3
 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	3.80E+0	8.10E-2	5.62E-2	3.94E+0	9.90E-3	1.52E+0	3.36E-2	4.06E-1	5.91E+0
GWP-f	kg CO2 eq	3.94E+0	8.09E-2	3.53E-2	4.05E+0	9.89E-3	1.37E+0	3.35E-2	4.06E-1	5.87E+0
GWP-b	kg CO2 eq	-1.46E-1	3.68E-5	2.09E-2	-1.26E-1	6.00E-6	1.48E-1	1.71E-4	-3.82E-3	1.87E-2
GWP-luluc	kg CO2 eq	1.03E-2	2.99E-5	1.56E-5	1.03E-2	3.50E-6	3.83E-6	8.52E-7	3.90E-3	1.42E-2
ODP	kg CFC11 eq	1.63E-7	1.78E-8	2.07E-9	1.83E-7	2.28E-9	1.73E-9	9.92E-10	-4.69E-8	1.41E-7
AP	mol H+ eq	2.27E-2	4.91E-4	1.43E-4	2.34E-2	5.63E-5	1.89E-4	2.47E-5	6.74E-3	3.04E-2
EP-fw	kg P eq	1.32E-4	8.12E-7	9.52E-7	1.34E-4	8.14E-8	1.99E-7	3.94E-8	3.48E-5	1.69E-4
EP-m	kg N eq	3.56E-3	1.70E-4	2.83E-5	3.75E-3	2.02E-5	8.42E-5	1.50E-5	9.03E-4	4.78E-3
EP-T	mol N eq	4.00E-2	1.88E-3	2.63E-4	4.21E-2	2.22E-4	9.58E-4	9.99E-5	9.94E-3	5.33E-2
POCP	kg NMVOC eq	1.30E-2	5.34E-4	8.47E-5	1.36E-2	6.35E-5	2.57E-4	3.56E-5	3.18E-3	1.71E-2
ADP-mm	kg Sb eq	2.68E-5	2.04E-6	1.47E-6	3.03E-5	2.56E-7	1.05E-7	2.46E-8	-2.25E-4	-1.94E-4
ADP-f	MJ	6.45E+1	1.22E+0	2.61E-1	6.60E+1	1.52E-1	1.08E-1	7.48E-2	4.17E+0	7.05E+1
WDP	m3 depriv.	1.34E+0	4.34E-3	7.07E-3	1.35E+0	4.66E-4	1.21E-3	3.70E-4	2.21E-1	1.57E+0
PM	disease inc.	2.50E-7	7.22E-9	1.41E-9	2.59E-7	8.93E-10	1.80E-9	4.92E-10	8.28E-8	3.45E-7
IR	kBq U-235 eq	8.73E-2	5.11E-3	3.81E-4	9.28E-2	6.63E-4	3.54E-4	3.91E-4	1.30E-2	1.07E-1
ETP-fw	CTUe	8.29E+1	1.08E+0	1.13E+0	8.52E+1	1.23E-1	4.73E-1	3.89E+1	2.33E+1	1.48E+2
HTP-c	CTUh	4.11E-9	3.54E-11	5.97E-11	4.21E-9	4.39E-12	1.97E-10	3.05E-12	1.38E-9	5.79E-9
HTP-nc	CTUh	7.80E-8	1.18E-9	1.41E-9	8.06E-8	1.47E-10	1.43E-9	6.45E-11	2.39E-8	1.06E-7
SQP	Pt	2.29E+1	1.05E+0	2.23E-1	2.42E+1	1.30E-1	7.27E-2	1.78E-1	-1.58E+0	2.30E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.47E+0	6.87E-5	1.66E+0	8.13E+0	2.18E-3	4.83E-3	5.04E-3	7.30E-1	8.87E+0
PERM	MJ	0	1.51E-2	0	1.51E-2	0	0	0	0	1.51E-2
PERT	MJ	6.47E+0	1.52E-2	1.66E+0	8.14E+0	2.18E-3	4.83E-3	5.04E-3	7.30E-1	8.88E+0
PENRE	MJ	6.89E+1	1.08E-2	2.81E-1	6.92E+1	1.61E-1	1.15E-1	7.93E-2	3.87E+0	7.34E+1
PENRM	MJ	0	1.28E+0	0	1.28E+0	0	0	0	0	1.28E+0
PENRT	MJ	6.89E+1	1.29E+0	2.81E-1	7.05E+1	1.61E-1	1.15E-1	7.93E-2	3.87E+0	7.47E+1
PET	MJ	7.54E+1	1.31E+0	1.94E+0	7.86E+1	1.63E-1	1.20E-1	8.44E-2	4.60E+0	8.36E+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	3.57E-2	1.48E-4	1.95E-4	3.60E-2	1.72E-5	2.52E-4	9.40E-5	7.33E-3	4.37E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.15E-3	3.07E-6	2.98E-7	1.16E-3	3.88E-7	4.79E-7	8.91E-8	-4.73E-4	6.85E-4
NHWD	kg	6.25E-1	7.67E-2	4.89E-3	7.06E-1	9.41E-3	1.29E-2	3.02E-1	1.91E-1	1.22E+0
RWD	kg	8.89E-5	8.01E-6	4.36E-7	9.73E-5	1.03E-6	4.48E-7	4.98E-7	1.29E-5	1.12E-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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