

# Environmental Profile

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

Ecochain v3.5.80



Product: 3061213 - Tigris PEXc/Al/PE Pipe WT 25x2.5 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]

## Statement of Confidentiality

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# Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	6.26E+0	1.35E-1	8.83E-2	6.48E+0	1.64E-2	2.55E+0	5.57E-2	6.90E-1	9.79E+0
GWP-f	kg CO2 eq	6.53E+0	1.35E-1	5.37E-2	6.72E+0	1.64E-2	2.25E+0	5.55E-2	6.91E-1	9.73E+0
GWP-b	kg CO2 eq	-2.93E-1	6.12E-5	3.46E-2	-2.58E-1	9.97E-6	2.96E-1	2.85E-4	-6.39E-3	3.15E-2
GWP-luluc	kg CO2 eq	1.72E-2	4.99E-5	2.09E-5	1.72E-2	5.81E-6	6.31E-6	1.42E-6	6.49E-3	2.37E-2
ODP	kg CFC11 eq	2.71E-7	2.97E-8	3.15E-9	3.04E-7	3.78E-9	2.88E-9	1.65E-9	-7.64E-8	2.36E-7
AP	mol H+ eq	3.78E-2	8.18E-4	1.88E-4	3.88E-2	9.35E-5	3.15E-4	4.10E-5	1.12E-2	5.04E-2
EP-fw	kg P eq	2.19E-4	1.35E-6	1.31E-6	2.22E-4	1.35E-7	3.29E-7	6.54E-8	5.79E-5	2.80E-4
EP-m	kg N eq	5.91E-3	2.84E-4	4.17E-5	6.24E-3	3.34E-5	1.40E-4	2.50E-5	1.50E-3	7.94E-3
EP-T	mol N eq	6.65E-2	3.13E-3	3.74E-4	7.00E-2	3.69E-4	1.60E-3	1.66E-4	1.65E-2	8.86E-2
POCP	kg NMVOC eq	2.15E-2	8.90E-4	1.20E-4	2.26E-2	1.05E-4	4.28E-4	5.91E-5	5.28E-3	2.84E-2
ADP-mm	kg Sb eq	4.45E-5	3.39E-6	1.79E-6	4.97E-5	4.25E-7	1.75E-7	4.09E-8	-3.74E-4	-3.24E-4
ADP-f	MJ	1.07E+2	2.03E+0	3.87E-1	1.09E+2	2.52E-1	1.79E-1	1.24E-1	7.09E+0	1.17E+2
WDP	m3 depriv.	2.21E+0	7.23E-3	1.00E-2	2.23E+0	7.73E-4	1.96E-3	6.15E-4	3.65E-1	2.60E+0
PM	disease inc.	4.18E-7	1.20E-8	2.04E-9	4.32E-7	1.48E-9	3.00E-9	8.17E-10	1.38E-7	5.75E-7
IR	kBq U-235 eq	1.45E-1	8.51E-3	5.98E-4	1.54E-1	1.10E-3	5.91E-4	6.49E-4	2.17E-2	1.78E-1
ETP-fw	CTUe	1.38E+2	1.81E+0	1.48E+0	1.41E+2	2.05E-1	7.82E-1	6.49E+1	3.86E+1	2.46E+2
HTP-c	CTUh	6.86E-9	5.90E-11	7.86E-11	7.00E-9	7.28E-12	3.27E-10	5.07E-12	2.30E-9	9.64E-9
HTP-nc	CTUh	1.30E-7	1.97E-9	1.82E-9	1.34E-7	2.44E-10	2.36E-9	1.07E-10	3.98E-8	1.76E-7
SQP	Pt	4.25E+1	1.75E+0	2.96E-1	4.45E+1	2.16E-1	1.21E-1	2.96E-1	-3.59E+0	4.16E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.14E+1	1.15E-4	1.96E+0	1.34E+1	3.61E-3	7.99E-3	8.37E-3	1.02E+0	1.44E+1
PERM	MJ	0	2.52E-2	0	2.52E-2	0	0	0	0	2.52E-2
PERT	MJ	1.14E+1	2.53E-2	1.96E+0	1.34E+1	3.61E-3	7.99E-3	8.37E-3	1.02E+0	1.44E+1
PENRE	MJ	1.14E+2	1.81E-2	4.17E-1	1.14E+2	2.67E-1	1.92E-1	1.32E-1	6.61E+0	1.22E+2
PENRM	MJ	0	2.14E+0	0	2.14E+0	0	0	0	0	2.14E+0
PENRT	MJ	1.14E+2	2.16E+0	4.17E-1	1.17E+2	2.67E-1	1.92E-1	1.32E-1	6.61E+0	1.24E+2
PET	MJ	1.25E+2	2.18E+0	2.37E+0	1.30E+2	2.71E-1	2.00E-1	1.40E-1	7.63E+0	1.38E+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	5.90E-2	2.46E-4	2.75E-4	5.95E-2	2.85E-5	4.18E-4	1.56E-4	1.22E-2	7.23E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.92E-3	5.12E-6	4.94E-7	1.93E-3	6.44E-7	7.94E-7	1.48E-7	-7.88E-4	1.14E-3
NHWD	kg	1.04E+0	1.28E-1	8.06E-3	1.18E+0	1.56E-2	2.12E-2	5.01E-1	3.18E-1	2.03E+0
RWD	kg	1.47E-4	1.33E-5	7.22E-7	1.62E-4	1.71E-6	7.49E-7	8.28E-7	2.14E-5	1.86E-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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