

Environmental Profile

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

Ecochain v3.5.80



Product: 3061202 - Tigris PEXc/Al/PE Pipe WT 16x2.0 L=500
 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	2.75E+2	6.79E+0	3.57E+0	2.86E+2	5.82E-1	8.74E+1	1.99E+0	1.98E+1	3.95E+2
GWP-f	kg CO2 eq	2.82E+2	6.78E+0	2.34E+0	2.91E+2	5.81E-1	7.96E+1	1.98E+0	1.98E+1	3.93E+2
GWP-b	kg CO2 eq	-6.99E+0	3.07E-3	1.24E+0	-5.75E+0	3.53E-4	7.81E+0	1.17E-2	-2.72E-1	1.80E+0
GWP-luluc	kg CO2 eq	7.21E-1	2.51E-3	1.17E-3	7.24E-1	2.06E-4	2.35E-4	5.28E-5	2.68E-1	9.93E-1
ODP	kg CFC11 eq	1.12E-5	1.50E-6	1.36E-7	1.28E-5	1.34E-7	1.06E-7	5.90E-8	-2.73E-6	1.04E-5
AP	mol H+ eq	1.59E+0	4.16E-2	1.09E-2	1.64E+0	3.31E-3	1.03E-2	1.48E-3	4.20E-1	2.07E+0
EP-fw	kg P eq	9.60E-3	6.79E-5	7.00E-5	9.74E-3	4.78E-6	1.20E-5	2.44E-6	2.19E-3	1.19E-2
EP-m	kg N eq	2.47E-1	1.44E-2	1.93E-3	2.63E-1	1.18E-3	4.53E-3	9.15E-4	5.54E-2	3.25E-1
EP-T	mol N eq	2.78E+0	1.58E-1	1.86E-2	2.96E+0	1.31E-2	5.14E-2	5.99E-3	6.14E-1	3.64E+0
POCP	kg NMVOC eq	9.20E-1	4.50E-2	6.05E-3	9.72E-1	3.73E-3	1.38E-2	2.13E-3	1.75E-1	1.17E+0
ADP-mm	kg Sb eq	1.79E-3	1.70E-4	1.19E-4	2.08E-3	1.50E-5	6.42E-6	1.48E-6	-1.60E-2	-1.39E-2
ADP-f	MJ	4.84E+3	1.02E+2	1.77E+1	4.96E+3	8.92E+0	6.33E+0	4.48E+0	-1.83E+2	4.79E+3
WDP	m3 depriv.	9.70E+1	3.63E-1	5.05E-1	9.79E+1	2.74E-2	4.93E-2	2.28E-2	3.64E+0	1.02E+2
PM	disease inc.	1.70E-5	6.04E-7	9.86E-8	1.77E-5	5.25E-8	1.01E-7	2.92E-8	5.28E-6	2.31E-5
IR	kBq U-235 eq	5.60E+0	4.28E-1	2.43E-2	6.05E+0	3.90E-2	2.12E-2	2.39E-2	6.16E-1	6.75E+0
ETP-fw	CTUe	5.65E+3	9.08E+1	8.71E+1	5.83E+3	7.25E+0	3.03E+1	2.74E+3	1.58E+3	1.02E+4
HTP-c	CTUh	2.88E-7	2.97E-9	4.55E-9	2.95E-7	2.58E-10	1.09E-8	1.96E-10	9.23E-8	3.99E-7
HTP-nc	CTUh	5.45E-6	9.91E-8	1.09E-7	5.66E-6	8.64E-9	8.29E-8	4.15E-9	1.59E-6	7.34E-6
SQP	Pt	1.19E+3	8.78E+1	1.69E+1	1.29E+3	7.63E+0	4.39E+0	1.05E+1	-4.80E+2	8.36E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.88E+2	7.26E-3	1.38E+2	5.25E+2	1.28E-1	2.89E-1	3.24E-1	-4.42E-2	5.26E+2
PERM	MJ	0	1.26E+0	0	1.26E+0	0	0	0	0	1.26E+0
PERT	MJ	3.88E+2	1.27E+0	1.38E+2	5.27E+2	1.28E-1	2.89E-1	3.24E-1	-4.42E-2	5.27E+2
PENRE	MJ	5.17E+3	1.14E+0	1.90E+1	5.19E+3	9.47E+0	6.77E+0	4.75E+0	-2.33E+2	4.98E+3
PENRM	MJ	0	1.07E+2	0	1.07E+2	0	0	0	0	1.07E+2
PENRT	MJ	5.17E+3	1.08E+2	1.90E+1	5.30E+3	9.47E+0	6.77E+0	4.75E+0	-2.33E+2	5.09E+3
PET	MJ	5.56E+3	1.10E+2	1.57E+2	5.83E+3	9.60E+0	7.06E+0	5.07E+0	-2.33E+2	5.61E+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	2.44E+0	1.24E-2	1.40E-2	2.47E+0	1.01E-3	1.29E-2	5.64E-3	3.39E-1	2.83E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.12E-2	2.57E-4	1.77E-5	8.14E-2	2.28E-5	2.83E-5	5.33E-6	-3.32E-2	4.83E-2
NHWD	kg	4.28E+1	6.41E+0	2.92E-1	4.95E+1	5.53E-1	5.86E-1	1.77E+1	1.28E+1	8.12E+1
RWD	kg	5.94E-3	6.71E-4	2.59E-5	6.63E-3	6.07E-5	2.67E-5	2.99E-5	6.57E-4	7.41E-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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