

Environmental Profile

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

Ecochain v3.5.80



Product: 3018301 – Tigris PEXc/Al/PE Pipe WT 32x3.0 L=50
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					Use stage							End-of-Life stage				
A1 Raw material supply A2 Transport A3 Manufacturing					B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment B6 Operational energy use B7 Operational water use							C1 De-construction demolition C2 Transport C3 Waste processing C4 Disposal				
Construction process stage												Benefits and loads beyond the system boundaries				
A4 Transport gate to site A5 Assembly / Construction installation process												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	9.70E+1	2.18E+0	1.37E+0	1.01E+2	1.82E-1	2.85E+1	5.64E-1	1.48E+1	1.45E+2
GWP-f	kg CO2 eq	1.02E+2	2.18E+0	9.30E-1	1.05E+2	1.81E-1	2.24E+1	5.60E-1	1.34E+1	1.42E+2
GWP-b	kg CO2 eq	-5.53E+0	1.00E-3	4.43E-1	-5.08E+0	1.10E-4	6.16E+0	4.57E-3	1.24E+0	2.31E+0
GWP-luluc	kg CO2 eq	2.92E-1	7.98E-4	5.13E-4	2.93E-1	6.42E-5	1.20E-4	1.80E-5	9.90E-2	3.92E-1
ODP	kg CFC11 eq	4.30E-6	4.80E-7	5.41E-8	4.83E-6	4.18E-8	5.70E-8	1.88E-8	-5.82E-7	4.37E-6
AP	mol H+ eq	6.04E-1	1.26E-2	4.83E-3	6.21E-1	1.03E-3	3.78E-3	4.78E-4	1.67E-1	7.94E-1
EP-fw	kg P eq	3.31E-3	2.20E-5	3.03E-5	3.37E-3	1.49E-6	5.51E-6	8.32E-7	7.69E-4	4.14E-3
EP-m	kg N eq	9.50E-2	4.45E-3	7.91E-4	1.00E-1	3.70E-4	1.60E-3	2.87E-4	2.21E-2	1.25E-1
EP-T	mol N eq	1.06E+0	4.90E-2	7.85E-3	1.12E+0	4.08E-3	1.80E-2	1.93E-3	2.43E-1	1.38E+0
POCP	kg NMVOC eq	3.42E-1	1.40E-2	2.57E-3	3.58E-1	1.17E-3	4.95E-3	6.67E-4	7.04E-2	4.35E-1
ADP-mm	kg Sb eq	6.28E-4	5.52E-5	5.51E-5	7.39E-4	4.69E-6	5.31E-6	4.75E-7	-6.52E-3	-5.78E-3
ADP-f	MJ	1.58E+3	3.28E+1	7.20E+0	1.62E+3	2.79E+0	3.54E+0	1.44E+0	1.43E+1	1.65E+3
WDP	m3 depriv.	3.15E+1	1.17E-1	2.14E-1	3.18E+1	8.55E-3	1.47E-2	7.35E-3	-3.07E-1	3.16E+1
PM	disease inc.	6.69E-6	1.95E-7	4.11E-8	6.92E-6	1.64E-8	4.30E-8	9.27E-9	2.00E-6	8.99E-6
IR	kBq U-235 eq	1.96E+0	1.38E-1	9.36E-3	2.11E+0	1.22E-2	1.36E-2	7.94E-3	1.82E-1	2.33E+0
ETP-fw	CTUe	2.38E+3	2.93E+1	3.88E+1	2.44E+3	2.26E+0	1.26E+1	1.12E+3	5.40E+2	4.12E+3
HTP-c	CTUh	1.15E-7	9.50E-10	2.02E-9	1.18E-7	8.05E-11	3.34E-9	7.06E-11	3.64E-8	1.58E-7
HTP-nc	CTUh	2.15E-6	3.20E-8	4.90E-8	2.23E-6	2.70E-9	2.64E-8	1.48E-9	6.19E-7	2.88E-6
SQP	Pt	7.12E+2	2.85E+1	7.46E+0	7.48E+2	2.38E+0	2.43E+0	3.31E+0	-6.01E+2	1.55E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.86E+2	0	6.45E+1	2.50E+2	4.00E-2	1.36E-1	1.17E-1	-6.86E+1	1.82E+2
PERM	MJ	0	4.11E-1	0	4.11E-1	0	0	0	0	4.11E-1
PERT	MJ	1.86E+2	4.11E-1	6.45E+1	2.51E+2	4.00E-2	1.36E-1	1.17E-1	-6.86E+1	1.83E+2
PENRE	MJ	1.69E+3	0	7.73E+0	1.70E+3	2.96E+0	3.77E+0	1.53E+0	4.18E+0	1.71E+3
PENRM	MJ	0	3.49E+1	0	3.49E+1	0	0	0	0	3.49E+1
PENRT	MJ	1.69E+3	3.49E+1	7.73E+0	1.74E+3	2.96E+0	3.77E+0	1.53E+0	4.18E+0	1.75E+3
PET	MJ	1.88E+3	3.53E+1	7.22E+1	1.99E+3	3.00E+0	3.90E+0	1.64E+0	-6.44E+1	1.93E+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	8.55E-1	4.00E-3	5.93E-3	8.65E-1	3.15E-4	3.99E-3	1.83E-3	9.13E-2	9.62E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.31E-2	8.32E-5	6.36E-6	3.32E-2	7.12E-6	1.25E-5	1.71E-6	-1.35E-2	1.97E-2
NHWD	kg	1.69E+1	2.08E+0	1.06E-1	1.91E+1	1.73E-1	2.44E-1	5.55E+0	5.05E+0	3.01E+1
RWD	kg	2.09E-3	2.16E-4	9.30E-6	2.31E-3	1.89E-5	1.85E-5	9.70E-6	2.11E-4	2.57E-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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