

Environmental Profile

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

Ecochain v3.5.80



Product: 3018293 - 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					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	5.95E+0	1.37E-1	9.58E-2	6.18E+0	1.64E-2	2.92E+0	5.57E-2	6.83E-1	9.86E+0
GWP-f	kg CO2 eq	6.60E+0	1.37E-1	5.88E-2	6.80E+0	1.64E-2	2.25E+0	5.55E-2	6.83E-1	9.80E+0
GWP-b	kg CO2 eq	-6.66E-1	6.22E-5	3.70E-2	-6.29E-1	9.97E-6	6.69E-1	2.85E-4	-6.37E-3	3.37E-2
GWP-luluc	kg CO2 eq	1.74E-2	5.06E-5	2.38E-5	1.75E-2	5.81E-6	7.33E-6	1.42E-6	6.44E-3	2.39E-2
ODP	kg CFC11 eq	2.81E-7	3.02E-8	3.45E-9	3.15E-7	3.78E-9	3.37E-9	1.65E-9	-7.80E-8	2.46E-7
AP	mol H+ eq	3.83E-2	8.30E-4	2.15E-4	3.93E-2	9.35E-5	3.51E-4	4.10E-5	1.10E-2	5.08E-2
EP-fw	kg P eq	2.22E-4	1.37E-6	1.48E-6	2.25E-4	1.35E-7	3.70E-7	6.54E-8	5.73E-5	2.83E-4
EP-m	kg N eq	6.05E-3	2.88E-4	4.61E-5	6.39E-3	3.34E-5	1.56E-4	2.50E-5	1.45E-3	8.05E-3
EP-T	mol N eq	6.82E-2	3.18E-3	4.18E-4	7.18E-2	3.69E-4	1.77E-3	1.66E-4	1.57E-2	8.98E-2
POCP	kg NMVOC eq	2.20E-2	9.04E-4	1.34E-4	2.30E-2	1.05E-4	4.76E-4	5.91E-5	5.13E-3	2.88E-2
ADP-mm	kg Sb eq	4.63E-5	3.45E-6	2.10E-6	5.19E-5	4.25E-7	2.23E-7	4.09E-8	-3.75E-4	-3.22E-4
ADP-f	MJ	1.08E+2	2.06E+0	4.27E-1	1.10E+2	2.52E-1	2.15E-1	1.24E-1	7.00E+0	1.18E+2
WDP	m3 depriv.	2.24E+0	7.35E-3	1.12E-2	2.26E+0	7.73E-4	2.34E-3	6.15E-4	3.63E-1	2.63E+0
PM	disease inc.	4.39E-7	1.22E-8	2.27E-9	4.53E-7	1.48E-9	3.37E-9	8.17E-10	1.35E-7	5.93E-7
IR	kBq U-235 eq	1.50E-1	8.65E-3	6.49E-4	1.59E-1	1.10E-3	7.40E-4	6.49E-4	2.13E-2	1.83E-1
ETP-fw	CTUe	1.40E+2	1.84E+0	1.70E+0	1.44E+2	2.05E-1	8.24E-1	6.49E+1	3.70E+1	2.47E+2
HTP-c	CTUh	7.04E-9	6.00E-11	9.00E-11	7.19E-9	7.28E-12	3.53E-10	5.07E-12	2.28E-9	9.83E-9
HTP-nc	CTUh	1.32E-7	2.01E-9	2.10E-9	1.36E-7	2.44E-10	2.46E-9	1.07E-10	3.94E-8	1.78E-7
SQP	Pt	7.66E+1	1.78E+0	3.38E-1	7.87E+1	2.16E-1	1.48E-1	2.96E-1	-1.08E+1	6.85E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.65E+1	1.15E-4	2.32E+0	1.88E+1	3.61E-3	9.12E-3	8.37E-3	-4.35E-1	1.84E+1
PERM	MJ	0	2.56E-2	0	2.56E-2	0	0	0	0	2.56E-2
PERT	MJ	1.65E+1	2.57E-2	2.32E+0	1.89E+1	3.61E-3	9.12E-3	8.37E-3	-4.35E-1	1.84E+1
PENRE	MJ	1.15E+2	1.81E-2	4.60E-1	1.16E+2	2.67E-1	2.29E-1	1.32E-1	6.52E+0	1.23E+2
PENRM	MJ	0	2.17E+0	0	2.17E+0	0	0	0	0	2.17E+0
PENRT	MJ	1.15E+2	2.19E+0	4.60E-1	1.18E+2	2.67E-1	2.29E-1	1.32E-1	6.52E+0	1.25E+2
PET	MJ	1.32E+2	2.22E+0	2.79E+0	1.37E+2	2.71E-1	2.38E-1	1.40E-1	6.08E+0	1.43E+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	5.99E-2	2.50E-4	3.08E-4	6.04E-2	2.85E-5	4.65E-4	1.56E-4	1.21E-2	7.32E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.93E-3	5.20E-6	5.28E-7	1.93E-3	6.44E-7	8.81E-7	1.48E-7	-7.89E-4	1.15E-3
NHWD	kg	1.07E+0	1.30E-1	8.63E-3	1.20E+0	1.56E-2	2.85E-2	5.01E-1	3.15E-1	2.06E+0
RWD	kg	1.53E-4	1.36E-5	7.72E-7	1.67E-4	1.71E-6	9.61E-7	8.28E-7	2.09E-5	1.92E-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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