

Environmental Profile

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

Ecochain v3.5.80



Product: 3004372 - Tigris PEXc/Al/PE Pipe WT 50x4.5 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	2.93E+1	3.61E-1	4.14E-1	3.01E+1	7.15E-2	1.02E+1	2.33E-1	4.55E+0	4.52E+1
GWP-f	kg CO2 eq	3.02E+1	3.61E-1	2.66E-1	3.08E+1	7.14E-2	9.34E+0	2.32E-1	4.55E+0	4.50E+1
GWP-b	kg CO2 eq	-9.31E-1	1.67E-4	1.48E-1	-7.83E-1	4.34E-5	9.03E-1	1.35E-3	-2.95E-2	9.20E-2
GWP-luluc	kg CO2 eq	8.15E-2	1.32E-4	1.25E-4	8.17E-2	2.53E-5	2.61E-5	6.33E-6	3.15E-2	1.13E-1
ODP	kg CFC11 eq	1.46E-6	7.97E-8	1.55E-8	1.56E-6	1.65E-8	1.20E-8	7.21E-9	-2.61E-7	1.33E-6
AP	mol H+ eq	1.79E-1	2.09E-3	1.16E-3	1.82E-1	4.07E-4	1.30E-3	1.80E-4	5.58E-2	2.40E-1
EP-fw	kg P eq	9.71E-4	3.64E-6	7.58E-6	9.82E-4	5.88E-7	1.38E-6	2.93E-7	2.85E-4	1.27E-3
EP-m	kg N eq	2.90E-2	7.38E-4	2.16E-4	3.00E-2	1.46E-4	5.79E-4	1.08E-4	7.67E-3	3.85E-2
EP-T	mol N eq	3.25E-1	8.14E-3	2.05E-3	3.35E-1	1.60E-3	6.59E-3	7.30E-4	8.46E-2	4.29E-1
POCP	kg NMVOC eq	1.03E-1	2.32E-3	6.64E-4	1.06E-1	4.59E-4	1.77E-3	2.57E-4	2.72E-2	1.36E-1
ADP-mm	kg Sb eq	2.17E-4	9.15E-6	1.24E-5	2.38E-4	1.85E-6	7.18E-7	1.80E-7	-1.80E-3	-1.56E-3
ADP-f	MJ	4.57E+2	5.45E+0	1.99E+0	4.65E+2	1.10E+0	7.45E-1	5.46E-1	5.92E+1	5.26E+2
WDP	m3 depriv.	9.13E+0	1.95E-2	5.54E-2	9.20E+0	3.37E-3	6.26E-3	2.71E-3	1.96E+0	1.12E+1
PM	disease inc.	2.02E-6	3.24E-8	1.09E-8	2.06E-6	6.45E-9	1.26E-8	3.57E-9	6.77E-7	2.76E-6
IR	kBq U-235 eq	7.08E-1	2.28E-2	2.81E-3	7.33E-1	4.79E-3	2.43E-3	2.88E-3	1.14E-1	8.57E-1
ETP-fw	CTUe	6.61E+2	4.86E+0	9.25E+0	6.75E+2	8.90E-1	3.31E+0	3.13E+2	1.91E+2	1.18E+3
HTP-c	CTUh	3.26E-8	1.58E-10	4.85E-10	3.33E-8	3.17E-11	1.36E-9	2.32E-11	1.12E-8	4.59E-8
HTP-nc	CTUh	6.23E-7	5.31E-9	1.16E-8	6.40E-7	1.06E-9	9.78E-9	4.87E-10	1.95E-7	8.46E-7
SQP	Pt	1.68E+2	4.73E+0	1.80E+0	1.75E+2	9.38E-1	5.15E-1	1.29E+0	-6.48E+0	1.71E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.67E+1	0	1.41E+1	6.08E+1	1.57E-2	3.31E-2	3.83E-2	7.13E+0	6.80E+1
PERM	MJ	0	6.82E-2	0	6.82E-2	0	0	0	0	6.82E-2
PERT	MJ	4.67E+1	6.82E-2	1.41E+1	6.09E+1	1.57E-2	3.31E-2	3.83E-2	7.13E+0	6.81E+1
PENRE	MJ	4.88E+2	0	2.14E+0	4.90E+2	1.16E+0	7.97E-1	5.79E-1	5.93E+1	5.52E+2
PENRM	MJ	0	5.78E+0	0	5.78E+0	0	0	0	0	5.78E+0
PENRT	MJ	4.88E+2	5.78E+0	2.14E+0	4.96E+2	1.16E+0	7.97E-1	5.79E-1	5.93E+1	5.58E+2
PET	MJ	5.35E+2	5.85E+0	1.63E+1	5.57E+2	1.18E+0	8.30E-1	6.17E-1	6.64E+1	6.26E+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	2.59E-1	6.63E-4	1.53E-3	2.61E-1	1.24E-4	1.68E-3	6.87E-4	6.23E-2	3.26E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.30E-3	1.38E-5	2.12E-6	9.32E-3	2.80E-6	3.30E-6	6.50E-7	-3.78E-3	5.54E-3
NHWD	kg	5.81E+0	3.46E-1	3.49E-2	6.19E+0	6.80E-2	8.28E-2	2.18E+0	1.55E+0	1.01E+1
RWD	kg	7.54E-4	3.58E-5	3.10E-6	7.93E-4	7.46E-6	3.09E-6	3.64E-6	1.14E-4	9.21E-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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