

Environmental Profile

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

Ecochain v3.5.80



Product: 3028271 - Tigris PEXc/Al/PE Pipe WT 63x6.0 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	3.71E+1	6.11E-1	7.02E-1	3.84E+1	1.13E-1	1.76E+1	3.98E-1	2.62E+0	5.92E+1
GWP-f	kg CO2 eq	3.86E+1	6.10E-1	4.68E-1	3.96E+1	1.13E-1	1.61E+1	3.97E-1	2.61E+0	5.89E+1
GWP-b	kg CO2 eq	-1.52E+0	2.82E-4	2.34E-1	-1.29E+0	6.85E-5	1.51E+0	1.58E-3	-2.74E-2	1.90E-1
GWP-luluc	kg CO2 eq	9.20E-2	2.24E-4	2.48E-4	9.25E-2	3.99E-5	4.24E-5	9.15E-6	3.44E-2	1.27E-1
ODP	kg CFC11 eq	1.94E-6	1.35E-7	2.72E-8	2.10E-6	2.60E-8	1.91E-8	1.12E-8	-6.40E-7	1.52E-6
AP	mol H+ eq	2.20E-1	3.54E-3	2.32E-3	2.26E-1	6.43E-4	2.20E-3	2.75E-4	6.23E-2	2.91E-1
EP-fw	kg P eq	1.20E-3	6.16E-6	1.47E-5	1.22E-3	9.29E-7	2.24E-6	4.22E-7	3.23E-4	1.54E-3
EP-m	kg N eq	3.66E-2	1.25E-3	3.93E-4	3.82E-2	2.30E-4	9.83E-4	1.74E-4	8.16E-3	4.78E-2
EP-T	mol N eq	4.09E-1	1.38E-2	3.85E-3	4.27E-1	2.54E-3	1.12E-2	1.12E-3	8.98E-2	5.32E-1
POCP	kg NMVOC eq	1.33E-1	3.93E-3	1.26E-3	1.38E-1	7.25E-4	3.00E-3	4.03E-4	3.02E-2	1.73E-1
ADP-mm	kg Sb eq	3.18E-4	1.55E-5	2.61E-5	3.60E-4	2.92E-6	1.09E-6	2.75E-7	-1.96E-3	-1.59E-3
ADP-f	MJ	6.63E+2	9.20E+0	3.59E+0	6.76E+2	1.73E+0	1.16E+0	8.37E-1	4.95E+1	7.29E+2
WDP	m3 depriv.	1.40E+1	3.29E-2	1.05E-1	1.41E+1	5.32E-3	1.90E-2	4.15E-3	2.89E+0	1.71E+1
PM	disease inc.	2.47E-6	5.48E-8	2.03E-8	2.54E-6	1.02E-8	2.00E-8	5.56E-9	7.62E-7	3.34E-6
IR	kBq U-235 eq	9.93E-1	3.86E-2	4.78E-3	1.04E+0	7.57E-3	3.72E-3	4.27E-3	1.29E-1	1.18E+0
ETP-fw	CTUe	7.78E+2	8.21E+0	1.86E+1	8.05E+2	1.41E+0	5.43E+0	3.41E+2	2.07E+2	1.36E+3
HTP-c	CTUh	3.80E-8	2.66E-10	9.71E-10	3.92E-8	5.01E-11	2.33E-9	3.12E-11	1.22E-8	5.38E-8
HTP-nc	CTUh	7.29E-7	8.98E-9	2.35E-8	7.61E-7	1.68E-9	1.67E-8	6.66E-10	2.16E-7	9.96E-7
SQP	Pt	2.57E+2	7.98E+0	3.59E+0	2.68E+2	1.48E+0	7.13E-1	2.03E+0	-1.75E+1	2.55E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.32E+1	0	3.03E+1	9.35E+1	2.49E-2	5.46E-2	5.12E-2	6.23E+0	9.99E+1
PERM	MJ	0	1.15E-1	0	1.15E-1	0	0	0	0	1.15E-1
PERT	MJ	6.32E+1	1.15E-1	3.03E+1	9.37E+1	2.49E-2	5.46E-2	5.12E-2	6.23E+0	1.00E+2
PENRE	MJ	7.08E+2	0	3.86E+0	7.12E+2	1.84E+0	1.24E+0	8.87E-1	4.63E+1	7.62E+2
PENRM	MJ	0	9.77E+0	0	9.77E+0	0	0	0	0	9.77E+0
PENRT	MJ	7.08E+2	9.77E+0	3.86E+0	7.22E+2	1.84E+0	1.24E+0	8.87E-1	4.63E+1	7.72E+2
PET	MJ	7.71E+2	9.89E+0	3.42E+1	8.15E+2	1.86E+0	1.29E+0	9.38E-1	5.26E+1	8.72E+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	3.55E-1	1.12E-3	2.90E-3	3.59E-1	1.96E-4	3.08E-3	1.05E-3	7.73E-2	4.40E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.02E-2	2.33E-5	3.35E-6	1.02E-2	4.43E-6	5.41E-6	9.99E-7	-4.19E-3	6.05E-3
NHWD	kg	7.33E+0	5.84E-1	5.55E-2	7.97E+0	1.07E-1	1.34E-1	3.44E+0	1.70E+0	1.34E+1
RWD	kg	1.05E-3	6.04E-5	4.90E-6	1.11E-3	1.18E-5	4.60E-6	5.55E-6	1.20E-4	1.26E-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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