

Environmental Profile

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

Ecochain v3.5.80



Product: 3018290 - Tigris PEXc/Al/PE Pipe WT 16x2.0 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	2.76E+0	7.23E-2	4.56E-2	2.88E+0	7.75E-3	1.37E+0	2.72E-2	1.88E-1	4.47E+0
GWP-f	kg CO2 eq	3.02E+0	7.22E-2	2.84E-2	3.12E+0	7.75E-3	1.10E+0	2.71E-2	1.88E-1	4.44E+0
GWP-b	kg CO2 eq	-2.60E-1	3.27E-5	1.72E-2	-2.43E-1	4.70E-6	2.67E-1	1.23E-4	-2.76E-3	2.17E-2
GWP-luluc	kg CO2 eq	7.52E-3	2.67E-5	1.22E-5	7.56E-3	2.74E-6	3.42E-6	6.51E-7	2.72E-3	1.03E-2
ODP	kg CFC11 eq	1.27E-7	1.59E-8	1.67E-9	1.44E-7	1.79E-9	1.56E-9	7.73E-10	-4.26E-8	1.06E-7
AP	mol H+ eq	1.70E-2	4.41E-4	1.11E-4	1.75E-2	4.41E-5	1.64E-4	1.91E-5	4.57E-3	2.23E-2
EP-fw	kg P eq	1.06E-4	7.24E-7	7.48E-7	1.07E-4	6.37E-8	1.73E-7	3.01E-8	2.40E-5	1.32E-4
EP-m	kg N eq	2.69E-3	1.53E-4	2.26E-5	2.87E-3	1.58E-5	7.31E-5	1.20E-5	5.88E-4	3.55E-3
EP-T	mol N eq	3.04E-2	1.68E-3	2.08E-4	3.23E-2	1.74E-4	8.30E-4	7.76E-5	6.36E-3	3.98E-2
POCP	kg NMVOC eq	9.94E-3	4.79E-4	6.70E-5	1.05E-2	4.97E-5	2.23E-4	2.79E-5	2.07E-3	1.29E-2
ADP-mm	kg Sb eq	2.16E-5	1.82E-6	1.12E-6	2.46E-5	2.00E-7	9.87E-8	1.91E-8	-1.58E-4	-1.33E-4
ADP-f	MJ	5.21E+1	1.09E+0	2.09E-1	5.34E+1	1.19E-1	9.65E-2	5.81E-2	1.11E+0	5.48E+1
WDP	m3 depriv.	1.09E+0	3.87E-3	5.60E-3	1.10E+0	3.65E-4	1.29E-3	2.89E-4	1.44E-1	1.25E+0
PM	disease inc.	1.90E-7	6.44E-9	1.12E-9	1.98E-7	6.99E-10	1.54E-9	3.84E-10	5.65E-8	2.57E-7
IR	kBq U-235 eq	6.95E-2	4.56E-3	3.09E-4	7.43E-2	5.20E-4	3.29E-4	3.01E-4	8.45E-3	8.39E-2
ETP-fw	CTUe	6.07E+1	9.67E-1	8.81E-1	6.25E+1	9.66E-2	4.01E-1	2.74E+1	1.55E+1	1.06E+2
HTP-c	CTUh	3.04E-9	3.16E-11	4.65E-11	3.12E-9	3.44E-12	1.68E-10	2.28E-12	9.54E-10	4.25E-9
HTP-nc	CTUh	5.72E-8	1.06E-9	1.09E-9	5.94E-8	1.15E-10	1.18E-9	4.86E-11	1.65E-8	7.73E-8
SQP	Pt	3.13E+1	9.36E-1	1.74E-1	3.24E+1	1.02E-1	6.42E-2	1.40E-1	-4.33E+0	2.84E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.95E+0	7.26E-5	1.26E+0	8.21E+0	1.71E-3	4.27E-3	3.76E-3	-1.32E-1	8.09E+0
PERM	MJ	0	1.35E-2	0	1.35E-2	0	0	0	0	1.35E-2
PERT	MJ	6.95E+0	1.36E-2	1.26E+0	8.23E+0	1.71E-3	4.27E-3	3.76E-3	-1.32E-1	8.10E+0
PENRE	MJ	5.57E+1	1.14E-2	2.25E-1	5.59E+1	1.26E-1	1.03E-1	6.16E-2	7.17E-1	5.69E+1
PENRM	MJ	0	1.14E+0	0	1.14E+0	0	0	0	0	1.14E+0
PENRT	MJ	5.57E+1	1.15E+0	2.25E-1	5.71E+1	1.26E-1	1.03E-1	6.16E-2	7.17E-1	5.81E+1
PET	MJ	6.26E+1	1.17E+0	1.49E+0	6.53E+1	1.28E-1	1.07E-1	6.54E-2	5.85E-1	6.62E+1
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	2.78E-2	1.32E-4	1.54E-4	2.80E-2	1.35E-5	2.23E-4	7.29E-5	4.95E-3	3.33E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.15E-4	2.74E-6	2.45E-7	8.18E-4	3.04E-7	4.12E-7	6.93E-8	-3.35E-4	4.84E-4
NHWD	kg	4.66E-1	6.83E-2	4.02E-3	5.38E-1	7.37E-3	1.25E-2	2.36E-1	1.32E-1	9.26E-1
RWD	kg	7.16E-5	7.15E-6	3.59E-7	7.91E-5	8.09E-7	4.20E-7	3.86E-7	8.15E-6	8.89E-5
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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