

Environmental Profile

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

Ecochain v3.5.80



Product: 3018297 - Tigris PEXc/Al/PE Pipe WT 16x2.0 L=100
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	5.51E+1	1.38E+0	7.30E-1	5.73E+1	1.16E-1	1.85E+1	3.97E-1	4.30E+0	8.05E+1
GWP-f	kg CO2 eq	5.71E+1	1.38E+0	4.61E-1	5.89E+1	1.16E-1	1.59E+1	3.95E-1	3.51E+0	7.88E+1
GWP-b	kg CO2 eq	-2.05E+0	6.23E-4	2.70E-1	-1.78E+0	7.05E-5	2.58E+0	2.33E-3	7.44E-1	1.55E+0
GWP-luluc	kg CO2 eq	1.49E-1	5.10E-4	2.05E-4	1.50E-1	4.11E-5	6.90E-5	1.06E-5	4.77E-2	1.97E-1
ODP	kg CFC11 eq	2.35E-6	3.04E-7	2.69E-8	2.68E-6	2.68E-8	3.27E-8	1.18E-8	-6.07E-7	2.14E-6
AP	mol H+ eq	3.22E-1	8.44E-3	1.88E-3	3.32E-1	6.62E-4	2.45E-3	2.96E-4	7.97E-2	4.15E-1
EP-fw	kg P eq	1.97E-3	1.38E-5	1.25E-5	2.00E-3	9.56E-7	3.26E-6	4.88E-7	3.65E-4	2.37E-3
EP-m	kg N eq	5.09E-2	2.91E-3	3.70E-4	5.42E-2	2.37E-4	1.05E-3	1.83E-4	1.01E-2	6.58E-2
EP-T	mol N eq	5.71E-1	3.21E-2	3.44E-3	6.07E-1	2.61E-3	1.19E-2	1.20E-3	1.11E-1	7.33E-1
POCP	kg NMVOC eq	1.88E-1	9.14E-3	1.11E-3	1.98E-1	7.46E-4	3.24E-3	4.25E-4	3.20E-2	2.34E-1
ADP-mm	kg Sb eq	3.75E-4	3.46E-5	1.95E-5	4.29E-4	3.00E-6	2.99E-6	2.95E-7	-3.20E-3	-2.77E-3
ADP-f	MJ	9.77E+2	2.07E+1	3.41E+0	1.00E+3	1.78E+0	2.03E+0	8.95E-1	-4.42E+1	9.62E+2
WDP	m3 depriv.	1.96E+1	7.37E-2	9.28E-2	1.98E+1	5.47E-3	1.57E-2	4.55E-3	-4.35E-1	1.94E+1
PM	disease inc.	3.47E-6	1.23E-7	1.85E-8	3.61E-6	1.05E-8	2.61E-8	5.84E-9	9.69E-7	4.62E-6
IR	kBq U-235 eq	1.16E+0	8.69E-2	4.96E-3	1.25E+0	7.79E-3	7.63E-3	4.77E-3	7.02E-2	1.34E+0
ETP-fw	CTUe	1.23E+3	1.84E+1	1.50E+1	1.26E+3	1.45E+0	7.49E+0	5.48E+2	2.53E+2	2.07E+3
HTP-c	CTUh	5.83E-8	6.03E-10	7.88E-10	5.97E-8	5.15E-11	2.29E-9	3.92E-11	1.78E-8	7.98E-8
HTP-nc	CTUh	1.10E-6	2.01E-8	1.87E-8	1.14E-6	1.73E-9	1.78E-8	8.29E-10	3.00E-7	1.46E-6
SQP	Pt	3.26E+2	1.78E+1	2.94E+0	3.47E+2	1.53E+0	1.31E+0	2.10E+0	-2.86E+2	6.58E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.21E+1	1.45E-3	2.21E+1	1.14E+2	2.56E-2	8.06E-2	6.48E-2	-3.30E+1	8.14E+1
PERM	MJ	0	2.57E-1	0	2.57E-1	0	0	0	0	2.57E-1
PERT	MJ	9.21E+1	2.58E-1	2.21E+1	1.14E+2	2.56E-2	8.06E-2	6.48E-2	-3.30E+1	8.16E+1
PENRE	MJ	1.04E+3	2.29E-1	3.67E+0	1.05E+3	1.89E+0	2.16E+0	9.48E-1	-5.47E+1	9.99E+2
PENRM	MJ	0	2.18E+1	0	2.18E+1	0	0	0	0	2.18E+1
PENRT	MJ	1.04E+3	2.20E+1	3.67E+0	1.07E+3	1.89E+0	2.16E+0	9.48E-1	-5.47E+1	1.02E+3
PET	MJ	1.14E+3	2.23E+1	2.57E+1	1.18E+3	1.92E+0	2.24E+0	1.01E+0	-8.77E+1	1.10E+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	4.97E-1	2.51E-3	2.56E-3	5.02E-1	2.02E-4	2.86E-3	1.13E-3	3.74E-2	5.43E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.63E-2	5.22E-5	3.85E-6	1.63E-2	4.56E-6	7.69E-6	1.06E-6	-6.66E-3	9.66E-3
NHWD	kg	8.79E+0	1.30E+0	6.32E-2	1.02E+1	1.10E-1	1.47E-1	3.55E+0	2.47E+0	1.64E+1
RWD	kg	1.23E-3	1.36E-4	5.64E-6	1.38E-3	1.21E-5	1.02E-5	5.98E-6	7.99E-5	1.48E-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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