

Environmental Profile

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

Ecochain v3.5.80



Product: 3069777 - Tigris PEXc/Al/PE Pipe WT 18x2.0 L=200
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	1.26E+2	2.08E+0	1.77E+0	1.30E+2	2.62E-1	3.75E+1	8.92E-1	1.03E+1	1.79E+2
GWP-f	kg CO2 eq	1.27E+2	2.07E+0	1.22E+0	1.31E+2	2.62E-1	3.55E+1	8.87E-1	9.32E+0	1.76E+2
GWP-b	kg CO2 eq	-1.25E+0	9.28E-4	5.54E-1	-6.99E-1	1.59E-4	2.03E+0	5.29E-3	8.61E-1	2.20E+0
GWP-luluc	kg CO2 eq	3.30E-1	7.72E-4	6.98E-4	3.32E-1	9.27E-5	1.25E-4	2.40E-5	1.16E-1	4.48E-1
ODP	kg CFC11 eq	5.13E-6	4.57E-7	7.08E-8	5.66E-6	6.04E-8	5.85E-8	2.66E-8	-1.22E-6	4.58E-6
AP	mol H+ eq	7.21E-1	1.30E-2	6.60E-3	7.41E-1	1.49E-3	4.95E-3	6.69E-4	1.89E-1	9.36E-1
EP-fw	kg P eq	4.31E-3	2.07E-5	4.10E-5	4.37E-3	2.16E-6	6.18E-6	1.11E-6	9.23E-4	5.30E-3
EP-m	kg N eq	1.13E-1	4.47E-3	1.05E-3	1.18E-1	5.34E-4	2.16E-3	4.12E-4	2.47E-2	1.46E-1
EP-T	mol N eq	1.26E+0	4.93E-2	1.05E-2	1.32E+0	5.89E-3	2.44E-2	2.70E-3	2.74E-1	1.63E+0
POCP	kg NMVOC eq	4.16E-1	1.40E-2	3.45E-3	4.34E-1	1.68E-3	6.61E-3	9.58E-4	7.93E-2	5.22E-1
ADP-mm	kg Sb eq	8.12E-4	5.19E-5	7.64E-5	9.40E-4	6.78E-6	4.63E-6	6.68E-7	-7.26E-3	-6.31E-3
ADP-f	MJ	2.17E+3	3.12E+1	9.53E+0	2.21E+3	4.02E+0	3.54E+0	2.02E+0	-7.77E+1	2.14E+3
WDP	m3 depriv.	4.38E+1	1.11E-1	2.88E-1	4.42E+1	1.23E-2	2.55E-2	1.08E-2	3.43E-1	4.45E+1
PM	disease inc.	7.72E-6	1.84E-7	5.48E-8	7.96E-6	2.37E-8	5.10E-8	1.32E-8	2.35E-6	1.04E-5
IR	kBq U-235 eq	2.53E+0	1.31E-1	1.21E-2	2.67E+0	1.76E-2	1.26E-2	1.08E-2	2.35E-1	2.95E+0
ETP-fw	CTUe	2.67E+3	2.77E+1	5.31E+1	2.76E+3	3.27E+0	1.52E+1	1.25E+3	6.51E+2	4.67E+3
HTP-c	CTUh	1.31E-7	9.10E-10	2.76E-9	1.34E-7	1.16E-10	5.25E-9	8.92E-11	4.22E-8	1.82E-7
HTP-nc	CTUh	2.48E-6	3.02E-8	6.73E-8	2.57E-6	3.89E-9	3.89E-8	1.88E-9	7.08E-7	3.33E-6
SQP	Pt	4.14E+2	2.67E+1	1.02E+1	4.51E+2	3.44E+0	2.33E+0	4.75E+0	-2.58E+2	2.03E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.59E+2	3.28E-3	8.97E+1	2.49E+2	5.77E-2	1.50E-1	1.47E-1	-1.15E+1	2.38E+2
PERM	MJ	0	3.84E-1	0	3.84E-1	0	0	0	0	3.84E-1
PERT	MJ	1.59E+2	3.88E-1	8.97E+1	2.49E+2	5.77E-2	1.50E-1	1.47E-1	-1.15E+1	2.38E+2
PENRE	MJ	2.32E+3	5.17E-1	1.02E+1	2.33E+3	4.27E+0	3.78E+0	2.14E+0	-9.98E+1	2.24E+3
PENRM	MJ	0	3.26E+1	0	3.26E+1	0	0	0	0	3.26E+1
PENRT	MJ	2.32E+3	3.31E+1	1.02E+1	2.37E+3	4.27E+0	3.78E+0	2.14E+0	-9.98E+1	2.28E+3
PET	MJ	2.48E+3	3.35E+1	9.99E+1	2.61E+3	4.33E+0	3.93E+0	2.29E+0	-1.11E+2	2.51E+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	1.11E+0	3.76E-3	7.97E-3	1.12E+0	4.55E-4	5.96E-3	2.54E-3	1.20E-1	1.25E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.69E-2	7.82E-5	7.96E-6	3.70E-2	1.03E-5	1.49E-5	2.41E-6	-1.51E-2	2.19E-2
NHWD	kg	1.95E+1	1.95E+0	1.33E-1	2.16E+1	2.49E-1	2.80E-1	8.00E+0	5.82E+0	3.59E+1
RWD	kg	2.68E-3	2.05E-4	1.16E-5	2.89E-3	2.74E-5	1.65E-5	1.35E-5	2.60E-4	3.21E-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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