

Environmental Profile

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

Ecochain v3.5.80



Product: 3041051 - Tigris PEXc/Al/PE Pipe WT 16x2.0 L=300
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	1.64E+2	4.10E+0	2.28E+0	1.70E+2	3.49E-1	5.51E+1	1.19E+0	1.14E+1	2.38E+2
GWP-f	kg CO2 eq	1.70E+2	4.09E+0	1.51E+0	1.75E+2	3.49E-1	4.81E+1	1.19E+0	1.14E+1	2.36E+2
GWP-b	kg CO2 eq	-6.45E+0	1.85E-3	7.66E-1	-5.68E+0	2.12E-4	6.94E+0	7.00E-3	-1.43E-1	1.13E+0
GWP-luluc	kg CO2 eq	4.34E-1	1.52E-3	7.90E-4	4.36E-1	1.23E-4	1.50E-4	3.17E-5	1.60E-1	5.96E-1
ODP	kg CFC11 eq	6.77E-6	9.02E-7	8.81E-8	7.76E-6	8.04E-8	6.72E-8	3.54E-8	-1.69E-6	6.25E-6
AP	mol H+ eq	9.57E-1	2.51E-2	7.40E-3	9.89E-1	1.99E-3	6.31E-3	8.88E-4	2.50E-1	1.25E+0
EP-fw	kg P eq	5.79E-3	4.10E-5	4.70E-5	5.88E-3	2.87E-6	7.47E-6	1.47E-6	1.30E-3	7.19E-3
EP-m	kg N eq	1.49E-1	8.66E-3	1.27E-3	1.59E-1	7.11E-4	2.78E-3	5.50E-4	3.26E-2	1.96E-1
EP-T	mol N eq	1.68E+0	9.56E-2	1.24E-2	1.79E+0	7.84E-3	3.15E-2	3.59E-3	3.61E-1	2.19E+0
POCP	kg NMVOC eq	5.57E-1	2.72E-2	4.03E-3	5.88E-1	2.24E-3	8.47E-3	1.28E-3	1.03E-1	7.03E-1
ADP-mm	kg Sb eq	1.09E-3	1.03E-4	8.26E-5	1.28E-3	9.03E-6	4.24E-6	8.85E-7	-9.59E-3	-8.30E-3
ADP-f	MJ	2.92E+3	6.16E+1	1.16E+1	2.99E+3	5.36E+0	4.06E+0	2.69E+0	-1.19E+2	2.89E+3
WDP	m3 depriv.	5.86E+1	2.19E-1	3.36E-1	5.92E+1	1.64E-2	3.18E-2	1.37E-2	2.06E+0	6.13E+1
PM	disease inc.	1.02E-5	3.65E-7	6.51E-8	1.07E-5	3.15E-8	6.24E-8	1.75E-8	3.13E-6	1.39E-5
IR	kBq U-235 eq	3.40E+0	2.58E-1	1.55E-2	3.67E+0	2.34E-2	1.39E-2	1.43E-2	3.53E-1	4.07E+0
ETP-fw	CTUe	3.41E+3	5.48E+1	5.93E+1	3.52E+3	4.35E+0	1.85E+1	1.64E+3	9.36E+2	6.13E+3
HTP-c	CTUh	1.74E-7	1.79E-9	3.09E-9	1.79E-7	1.55E-10	6.63E-9	1.18E-10	5.46E-8	2.40E-7
HTP-nc	CTUh	3.28E-6	5.98E-8	7.47E-8	3.42E-6	5.18E-9	5.04E-8	2.49E-9	9.44E-7	4.42E-6
SQP	Pt	9.04E+2	5.30E+1	1.15E+1	9.69E+2	4.58E+0	2.84E+0	6.32E+0	-4.49E+2	5.33E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.60E+2	4.35E-3	9.60E+1	3.56E+2	7.68E-2	1.82E-1	1.95E-1	-2.43E+1	3.32E+2
PERM	MJ	0	7.63E-1	0	7.63E-1	0	0	0	0	7.63E-1
PERT	MJ	2.60E+2	7.67E-1	9.60E+1	3.57E+2	7.68E-2	1.82E-1	1.95E-1	-2.43E+1	3.33E+2
PENRE	MJ	3.12E+3	6.86E-1	1.24E+1	3.14E+3	5.69E+0	4.34E+0	2.85E+0	-1.50E+2	3.00E+3
PENRM	MJ	0	6.47E+1	0	6.47E+1	0	0	0	0	6.47E+1
PENRT	MJ	3.12E+3	6.54E+1	1.24E+1	3.20E+3	5.69E+0	4.34E+0	2.85E+0	-1.50E+2	3.06E+3
PET	MJ	3.38E+3	6.62E+1	1.08E+2	3.56E+3	5.76E+0	4.52E+0	3.04E+0	-1.74E+2	3.40E+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	1.47E+0	7.46E-3	9.31E-3	1.49E+0	6.06E-4	7.90E-3	3.39E-3	2.00E-1	1.70E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.87E-2	1.55E-4	1.10E-5	4.89E-2	1.37E-5	1.76E-5	3.20E-6	-2.00E-2	2.90E-2
NHWD	kg	2.59E+1	3.87E+0	1.81E-1	3.00E+1	3.32E-1	3.79E-1	1.07E+1	7.58E+0	4.89E+1
RWD	kg	3.60E-3	4.05E-4	1.60E-5	4.02E-3	3.64E-5	1.77E-5	1.80E-5	3.74E-4	4.47E-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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