

Environmental Profile

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

Ecochain v3.5.80



Product: 3072958 - Tigris PEXc/Al/PE Pipe WT 16x2.0 L=3
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	1.75E+0	4.29E-2	2.60E-2	1.82E+0	4.67E-3	7.26E-1	1.64E-2	1.11E-1	2.68E+0
GWP-f	kg CO2 eq	1.80E+0	4.28E-2	1.62E-2	1.86E+0	4.66E-3	6.66E-1	1.63E-2	1.12E-1	2.66E+0
GWP-b	kg CO2 eq	-5.49E-2	1.94E-5	9.78E-3	-4.51E-2	2.83E-6	5.92E-2	7.38E-5	-1.65E-3	1.25E-2
GWP-luluc	kg CO2 eq	4.46E-3	1.59E-5	6.98E-6	4.48E-3	1.65E-6	1.82E-6	3.91E-7	1.64E-3	6.13E-3
ODP	kg CFC11 eq	7.37E-8	9.44E-9	9.51E-10	8.41E-8	1.07E-9	8.17E-10	4.65E-10	-2.56E-8	6.09E-8
AP	mol H+ eq	1.01E-2	2.62E-4	6.38E-5	1.04E-2	2.66E-5	8.98E-5	1.15E-5	2.79E-3	1.33E-2
EP-fw	kg P eq	6.30E-5	4.29E-7	4.29E-7	6.38E-5	3.84E-8	9.46E-8	1.81E-8	1.46E-5	7.85E-5
EP-m	kg N eq	1.58E-3	9.05E-5	1.29E-5	1.69E-3	9.51E-6	4.01E-5	7.23E-6	3.66E-4	2.11E-3
EP-T	mol N eq	1.79E-2	9.98E-4	1.19E-4	1.90E-2	1.05E-4	4.55E-4	4.67E-5	4.03E-3	2.36E-2
POCP	kg NMVOC eq	5.87E-3	2.84E-4	3.84E-5	6.19E-3	2.99E-5	1.22E-4	1.68E-5	1.28E-3	7.64E-3
ADP-mm	kg Sb eq	1.26E-5	1.08E-6	6.46E-7	1.43E-5	1.21E-7	4.77E-8	1.15E-8	-9.49E-5	-8.05E-5
ADP-f	MJ	3.12E+1	6.45E-1	1.19E-1	3.20E+1	7.16E-2	4.95E-2	3.50E-2	6.58E-1	3.28E+1
WDP	m3 depriv.	6.52E-1	2.29E-3	3.20E-3	6.58E-1	2.20E-4	6.93E-4	1.74E-4	8.76E-2	7.47E-1
PM	disease inc.	1.09E-7	3.82E-9	6.42E-10	1.14E-7	4.21E-10	8.37E-10	2.31E-10	3.47E-8	1.50E-7
IR	kBq U-235 eq	4.07E-2	2.70E-3	1.77E-4	4.36E-2	3.13E-4	1.61E-4	1.81E-4	5.17E-3	4.94E-2
ETP-fw	CTUe	3.60E+1	5.73E-1	5.06E-1	3.70E+1	5.81E-2	2.32E-1	1.65E+1	9.75E+0	6.35E+1
HTP-c	CTUh	1.78E-9	1.87E-11	2.67E-11	1.82E-9	2.07E-12	9.47E-11	1.37E-12	5.79E-10	2.50E-9
HTP-nc	CTUh	3.39E-8	6.26E-10	6.28E-10	3.51E-8	6.93E-11	6.91E-10	2.92E-11	1.00E-8	4.60E-8
SQP	Pt	9.59E+0	5.55E-1	9.97E-2	1.02E+1	6.13E-2	3.19E-2	8.40E-2	-6.33E-1	9.79E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.80E+0	4.35E-5	7.26E-1	3.52E+0	1.03E-3	2.30E-3	2.26E-3	3.17E-1	3.85E+0
PERM	MJ	0	7.99E-3	0	7.99E-3	0	0	0	0	7.99E-3
PERT	MJ	2.80E+0	8.03E-3	7.26E-1	3.53E+0	1.03E-3	2.30E-3	2.26E-3	3.17E-1	3.85E+0
PENRE	MJ	3.33E+1	6.86E-3	1.28E-1	3.35E+1	7.60E-2	5.30E-2	3.71E-2	4.17E-1	3.41E+1
PENRM	MJ	0	6.78E-1	0	6.78E-1	0	0	0	0	6.78E-1
PENRT	MJ	3.33E+1	6.84E-1	1.28E-1	3.42E+1	7.60E-2	5.30E-2	3.71E-2	4.17E-1	3.47E+1
PET	MJ	3.61E+1	6.93E-1	8.55E-1	3.77E+1	7.70E-2	5.53E-2	3.93E-2	7.34E-1	3.86E+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	1.65E-2	7.81E-5	8.84E-5	1.67E-2	8.10E-6	1.23E-4	4.39E-5	2.99E-3	1.99E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.88E-4	1.62E-6	1.40E-7	4.90E-4	1.83E-7	2.27E-7	4.17E-8	-2.01E-4	2.89E-4
NHWD	kg	2.73E-1	4.05E-2	2.29E-3	3.16E-1	4.44E-3	5.77E-3	1.42E-1	8.02E-2	5.49E-1
RWD	kg	4.18E-5	4.24E-6	2.04E-7	4.62E-5	4.87E-7	2.00E-7	2.33E-7	5.01E-6	5.22E-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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