

Environmental Profile

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

Ecochain v3.5.80



Product: 3059255 - Tigris PEXc/Al/PE Pipe WT 50x4.5 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	2.54E+1	3.30E-1	3.45E-1	2.61E+1	4.52E-2	9.08E+0	1.33E-1	4.40E+0	3.97E+1
GWP-f	kg CO2 eq	2.87E+1	3.30E-1	2.30E-1	2.93E+1	4.51E-2	5.73E+0	1.32E-1	4.41E+0	3.96E+1
GWP-b	kg CO2 eq	-3.38E+0	1.52E-4	1.15E-1	-3.27E+0	2.74E-5	3.35E+0	1.26E-3	-3.87E-2	4.06E-2
GWP-luluc	kg CO2 eq	8.07E-2	1.21E-4	1.22E-4	8.09E-2	1.60E-5	2.83E-5	4.67E-6	3.07E-2	1.12E-1
ODP	kg CFC11 eq	1.36E-6	7.28E-8	1.34E-8	1.44E-6	1.04E-8	1.29E-8	4.72E-9	-9.22E-8	1.38E-6
AP	mol H+ eq	1.72E-1	1.91E-3	1.15E-3	1.75E-1	2.57E-4	1.08E-3	1.21E-4	4.87E-2	2.25E-1
EP-fw	kg P eq	8.98E-4	3.33E-6	7.26E-6	9.09E-4	3.71E-7	1.31E-6	2.16E-7	2.53E-4	1.16E-3
EP-m	kg N eq	2.80E-2	6.74E-4	1.94E-4	2.88E-2	9.19E-5	4.73E-4	6.87E-5	6.58E-3	3.61E-2
EP-T	mol N eq	3.14E-1	7.43E-3	1.90E-3	3.23E-1	1.01E-3	5.34E-3	4.89E-4	7.09E-2	4.01E-1
POCP	kg NMVOC eq	9.98E-2	2.12E-3	6.20E-4	1.03E-1	2.90E-4	1.44E-3	1.66E-4	2.14E-2	1.26E-1
ADP-mm	kg Sb eq	1.91E-4	8.36E-6	1.29E-5	2.12E-4	1.17E-6	9.77E-7	1.20E-7	-1.82E-3	-1.61E-3
ADP-f	MJ	4.31E+2	4.98E+0	1.77E+0	4.38E+2	6.93E-1	8.62E-1	3.64E-1	1.50E+1	4.55E+2
WDP	m3 depriv.	8.28E+0	1.78E-2	5.17E-2	8.35E+0	2.13E-3	2.56E-3	1.88E-3	5.00E-1	8.86E+0
PM	disease inc.	2.04E-6	2.96E-8	9.99E-9	2.08E-6	4.07E-9	1.15E-8	2.33E-9	5.98E-7	2.70E-6
IR	kBq U-235 eq	5.92E-1	2.09E-2	2.35E-3	6.16E-1	3.03E-3	3.14E-3	2.04E-3	8.17E-2	7.06E-1
ETP-fw	CTUe	6.37E+2	4.44E+0	9.20E+0	6.51E+2	5.62E-1	2.74E+0	3.13E+2	1.73E+2	1.14E+3
HTP-c	CTUh	3.27E-8	1.44E-10	4.80E-10	3.33E-8	2.00E-11	1.03E-9	1.88E-11	1.08E-8	4.51E-8
HTP-nc	CTUh	6.12E-7	4.85E-9	1.16E-8	6.28E-7	6.70E-10	7.04E-9	3.89E-10	1.80E-7	8.16E-7
SQP	Pt	3.69E+2	4.32E+0	1.77E+0	3.75E+2	5.92E-1	6.82E-1	8.25E-1	-5.50E+1	3.22E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.56E+1	0	1.50E+1	9.06E+1	9.93E-3	3.24E-2	3.12E-2	-3.42E+0	8.73E+1
PERM	MJ	0	6.23E-2	0	6.23E-2	0	0	0	0	6.23E-2
PERT	MJ	7.56E+1	6.23E-2	1.50E+1	9.07E+1	9.93E-3	3.24E-2	3.12E-2	-3.42E+0	8.73E+1
PENRE	MJ	4.60E+2	0	1.90E+0	4.62E+2	7.35E-1	9.19E-1	3.86E-1	1.31E+1	4.77E+2
PENRM	MJ	0	5.28E+0	0	5.28E+0	0	0	0	0	5.28E+0
PENRT	MJ	4.60E+2	5.28E+0	1.90E+0	4.68E+2	7.35E-1	9.19E-1	3.86E-1	1.31E+1	4.83E+2
PET	MJ	5.36E+2	5.35E+0	1.69E+1	5.58E+2	7.45E-1	9.51E-1	4.17E-1	9.64E+0	5.70E+2
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	2.35E-1	6.06E-4	1.43E-3	2.37E-1	7.84E-5	1.24E-3	4.63E-4	4.13E-2	2.80E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.29E-3	1.26E-5	1.64E-6	9.31E-3	1.77E-6	2.99E-6	4.31E-7	-3.75E-3	5.56E-3
NHWD	kg	5.46E+0	3.16E-1	2.72E-2	5.80E+0	4.29E-2	1.32E-1	1.38E+0	1.48E+0	8.84E+0
RWD	kg	6.52E-4	3.27E-5	2.40E-6	6.87E-4	4.71E-6	4.25E-6	2.46E-6	9.04E-5	7.89E-4
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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