

Environmental Profile

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

Ecochain v3.5.80



Product: 3023031 - Tigris PEXc/Al/PE Pipe WT 20x2.25 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	8.04E+1	1.28E+0	9.65E-1	8.27E+1	1.63E-1	2.36E+1	5.48E-1	7.70E+0	1.15E+2
GWP-f	kg CO2 eq	8.14E+1	1.28E+0	6.07E-1	8.33E+1	1.63E-1	2.18E+1	5.45E-1	6.75E+0	1.13E+2
GWP-b	kg CO2 eq	-1.23E+0	5.75E-4	3.58E-1	-8.70E-1	9.90E-5	1.82E+0	3.44E-3	8.88E-1	1.84E+0
GWP-luluc	kg CO2 eq	2.17E-1	4.76E-4	2.67E-4	2.17E-1	5.77E-5	8.70E-5	1.51E-5	7.37E-2	2.91E-1
ODP	kg CFC11 eq	3.31E-6	2.82E-7	3.55E-8	3.63E-6	3.76E-8	4.14E-8	1.66E-8	-7.40E-7	2.98E-6
AP	mol H+ eq	4.65E-1	8.00E-3	2.45E-3	4.76E-1	9.29E-4	3.23E-3	4.18E-4	1.22E-1	6.03E-1
EP-fw	kg P eq	2.71E-3	1.28E-5	1.64E-5	2.74E-3	1.34E-6	4.21E-6	6.98E-7	5.77E-4	3.32E-3
EP-m	kg N eq	7.31E-2	2.75E-3	4.85E-4	7.63E-2	3.32E-4	1.40E-3	2.55E-4	1.60E-2	9.43E-2
EP-T	mol N eq	8.18E-1	3.03E-2	4.51E-3	8.53E-1	3.66E-3	1.58E-2	1.69E-3	1.77E-1	1.05E+0
POCP	kg NMVOC eq	2.68E-1	8.60E-3	1.45E-3	2.78E-1	1.05E-3	4.30E-3	5.97E-4	5.14E-2	3.35E-1
ADP-mm	kg Sb eq	5.17E-4	3.21E-5	2.52E-5	5.75E-4	4.22E-6	3.67E-6	4.16E-7	-4.77E-3	-4.19E-3
ADP-f	MJ	1.37E+3	1.93E+1	4.48E+0	1.39E+3	2.50E+0	2.56E+0	1.26E+0	-4.05E+1	1.36E+3
WDP	m3 depriv.	2.73E+1	6.84E-2	1.21E-1	2.75E+1	7.68E-3	1.67E-2	6.41E-3	-2.21E-1	2.73E+1
PM	disease inc.	5.03E-6	1.14E-7	2.42E-8	5.17E-6	1.47E-8	3.46E-8	8.22E-9	1.50E-6	6.73E-6
IR	kBq U-235 eq	1.61E+0	8.08E-2	6.55E-3	1.69E+0	1.09E-2	9.44E-3	6.78E-3	1.36E-1	1.86E+0
ETP-fw	CTUe	1.78E+3	1.71E+1	1.95E+1	1.81E+3	2.03E+0	9.92E+0	8.17E+2	4.03E+2	3.04E+3
HTP-c	CTUh	8.49E-8	5.62E-10	1.03E-9	8.65E-8	7.23E-11	3.09E-9	5.67E-11	2.74E-8	1.17E-7
HTP-nc	CTUh	1.61E-6	1.87E-8	2.42E-8	1.65E-6	2.42E-9	2.41E-8	1.19E-9	4.58E-7	2.14E-6
SQP	Pt	3.09E+2	1.65E+1	3.83E+0	3.29E+2	2.14E+0	1.68E+0	2.96E+0	-2.51E+2	8.50E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.09E+2	1.83E-3	2.85E+1	1.38E+2	3.59E-2	1.03E-1	9.38E-2	-2.17E+1	1.16E+2
PERM	MJ	0	2.38E-1	0	2.38E-1	0	0	0	0	2.38E-1
PERT	MJ	1.09E+2	2.40E-1	2.85E+1	1.38E+2	3.59E-2	1.03E-1	9.38E-2	-2.17E+1	1.16E+2
PENRE	MJ	1.46E+3	2.88E-1	4.82E+0	1.47E+3	2.66E+0	2.73E+0	1.34E+0	-5.37E+1	1.42E+3
PENRM	MJ	0	2.02E+1	0	2.02E+1	0	0	0	0	2.02E+1
PENRT	MJ	1.46E+3	2.05E+1	4.82E+0	1.49E+3	2.66E+0	2.73E+0	1.34E+0	-5.37E+1	1.44E+3
PET	MJ	1.57E+3	2.07E+1	3.33E+1	1.62E+3	2.69E+0	2.83E+0	1.43E+0	-7.53E+1	1.56E+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	7.02E-1	2.33E-3	3.35E-3	7.08E-1	2.83E-4	3.75E-3	1.59E-3	6.73E-2	7.81E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.42E-2	4.84E-5	5.12E-6	2.43E-2	6.40E-6	9.98E-6	1.50E-6	-9.89E-3	1.44E-2
NHWD	kg	1.27E+1	1.21E+0	8.40E-2	1.40E+1	1.55E-1	1.90E-1	4.98E+0	3.78E+0	2.31E+1
RWD	kg	1.70E-3	1.27E-4	7.49E-6	1.83E-3	1.70E-5	1.26E-5	8.46E-6	1.54E-4	2.02E-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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