

Environmental Profile

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

Ecochain v3.5.80



Product: 3018295 - Tigris PEXc/Al/PE Pipe WT 40x4.0 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	1.59E+1	3.95E-1	2.57E-1	1.66E+1	4.23E-2	7.36E+0	1.41E-1	2.12E+0	2.62E+1
GWP-f	kg CO2 eq	1.76E+1	3.95E-1	1.62E-1	1.81E+1	4.23E-2	5.69E+0	1.40E-1	2.12E+0	2.61E+1
GWP-b	kg CO2 eq	-1.68E+0	1.82E-4	9.49E-2	-1.59E+0	2.57E-5	1.67E+0	7.77E-4	-1.80E-2	6.88E-2
GWP-luluc	kg CO2 eq	4.73E-2	1.45E-4	7.26E-5	4.75E-2	1.50E-5	1.93E-5	3.72E-6	1.78E-2	6.54E-2
ODP	kg CFC11 eq	7.49E-7	8.71E-8	9.50E-9	8.45E-7	9.75E-9	8.84E-9	4.26E-9	-1.82E-7	6.86E-7
AP	mol H+ eq	1.03E-1	2.29E-3	6.66E-4	1.06E-1	2.41E-4	8.95E-4	1.06E-4	3.05E-2	1.37E-1
EP-fw	kg P eq	5.72E-4	3.98E-6	4.43E-6	5.80E-4	3.48E-7	9.67E-7	1.72E-7	1.58E-4	7.40E-4
EP-m	kg N eq	1.62E-2	8.07E-4	1.30E-4	1.72E-2	8.62E-5	3.97E-4	6.49E-5	4.05E-3	2.18E-2
EP-T	mol N eq	1.83E-1	8.89E-3	1.22E-3	1.93E-1	9.50E-4	4.50E-3	4.31E-4	4.39E-2	2.42E-1
POCP	kg NMVOC eq	5.88E-2	2.54E-3	3.93E-4	6.17E-2	2.72E-4	1.21E-3	1.52E-4	1.42E-2	7.76E-2
ADP-mm	kg Sb eq	1.20E-4	1.00E-5	6.90E-6	1.37E-4	1.09E-6	5.81E-7	1.06E-7	-1.04E-3	-8.98E-4
ADP-f	MJ	2.81E+2	5.95E+0	1.20E+0	2.88E+2	6.49E-1	5.56E-1	3.22E-1	2.11E+1	3.10E+2
WDP	m3 depriv.	5.84E+0	2.13E-2	3.28E-2	5.90E+0	1.99E-3	5.62E-3	1.60E-3	9.42E-1	6.85E+0
PM	disease inc.	1.18E-6	3.54E-8	6.52E-9	1.23E-6	3.82E-9	8.65E-9	2.11E-9	3.71E-7	1.61E-6
IR	kBq U-235 eq	3.88E-1	2.49E-2	1.75E-3	4.15E-1	2.84E-3	1.92E-3	1.70E-3	5.87E-2	4.80E-1
ETP-fw	CTUe	3.79E+2	5.31E+0	5.30E+0	3.90E+2	5.27E-1	2.20E+0	1.80E+2	1.03E+2	6.75E+2
HTP-c	CTUh	1.92E-8	1.72E-10	2.79E-10	1.96E-8	1.88E-11	8.97E-10	1.35E-11	6.31E-9	2.69E-8
HTP-nc	CTUh	3.58E-7	5.81E-9	6.60E-9	3.70E-7	6.28E-10	6.27E-9	2.85E-10	1.09E-7	4.86E-7
SQP	Pt	1.93E+2	5.16E+0	1.04E+0	2.00E+2	5.55E-1	3.89E-1	7.64E-1	-2.65E+1	1.75E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.25E+1	0	7.82E+0	5.03E+1	9.31E-3	2.38E-2	2.23E-2	-5.50E-1	4.98E+1
PERM	MJ	0	7.45E-2	0	7.45E-2	0	0	0	0	7.45E-2
PERT	MJ	4.25E+1	7.45E-2	7.82E+0	5.03E+1	9.31E-3	2.38E-2	2.23E-2	-5.50E-1	4.99E+1
PENRE	MJ	3.00E+2	0	1.29E+0	3.01E+2	6.89E-1	5.94E-1	3.42E-1	2.01E+1	3.23E+2
PENRM	MJ	0	6.32E+0	0	6.32E+0	0	0	0	0	6.32E+0
PENRT	MJ	3.00E+2	6.32E+0	1.29E+0	3.07E+2	6.89E-1	5.94E-1	3.42E-1	2.01E+1	3.29E+2
PET	MJ	3.42E+2	6.39E+0	9.11E+0	3.58E+2	6.99E-1	6.18E-1	3.64E-1	1.95E+1	3.79E+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	1.57E-1	7.25E-4	9.05E-4	1.58E-1	7.35E-5	1.17E-3	4.05E-4	3.28E-2	1.93E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.33E-3	1.51E-5	1.36E-6	5.34E-3	1.66E-6	2.27E-6	3.84E-7	-2.18E-3	3.17E-3
NHWD	kg	2.87E+0	3.78E-1	2.23E-2	3.27E+0	4.02E-2	7.26E-2	1.29E+0	8.71E-1	5.54E+0
RWD	kg	3.96E-4	3.91E-5	1.98E-6	4.37E-4	4.42E-6	2.49E-6	2.15E-6	5.86E-5	5.05E-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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