

Environmental Profile

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

Ecochain v3.5.80



Product: 3075696 - Tigris PEXc/Al/PE Pipe WT 20x2.25 L=50
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	3.93E+1	6.62E-1	7.17E-1	4.07E+1	8.16E-2	1.36E+1	2.74E-1	3.77E+0	5.84E+1
GWP-f	kg CO2 eq	4.14E+1	6.61E-1	5.18E-1	4.26E+1	8.15E-2	1.10E+1	2.72E-1	2.97E+0	5.69E+1
GWP-b	kg CO2 eq	-2.14E+0	2.97E-4	1.99E-1	-1.94E+0	4.95E-5	2.58E+0	1.72E-3	7.62E-1	1.40E+0
GWP-luluc	kg CO2 eq	1.11E-1	2.46E-4	3.31E-4	1.12E-1	2.89E-5	5.62E-5	7.54E-6	3.39E-2	1.46E-1
ODP	kg CFC11 eq	1.74E-6	1.46E-7	2.99E-8	1.91E-6	1.88E-8	2.69E-8	8.31E-9	-4.21E-7	1.55E-6
AP	mol H+ eq	2.36E-1	4.12E-3	3.16E-3	2.44E-1	4.64E-4	1.84E-3	2.09E-4	5.84E-2	3.05E-1
EP-fw	kg P eq	1.39E-3	6.61E-6	1.91E-5	1.42E-3	6.71E-7	2.58E-6	3.49E-7	2.51E-4	1.67E-3
EP-m	kg N eq	3.77E-2	1.41E-3	4.60E-4	3.96E-2	1.66E-4	7.84E-4	1.27E-4	7.28E-3	4.79E-2
EP-T	mol N eq	4.21E-1	1.56E-2	4.78E-3	4.41E-1	1.83E-3	8.82E-3	8.46E-4	8.00E-2	5.33E-1
POCP	kg NMVOC eq	1.38E-1	4.43E-3	1.58E-3	1.44E-1	5.24E-4	2.42E-3	2.98E-4	2.31E-2	1.70E-1
ADP-mm	kg Sb eq	2.73E-4	1.66E-5	3.79E-5	3.28E-4	2.11E-6	2.68E-6	2.08E-7	-2.39E-3	-2.06E-3
ADP-f	MJ	6.94E+2	9.95E+0	4.16E+0	7.08E+2	1.25E+0	1.70E+0	6.32E-1	-2.71E+1	6.85E+2
WDP	m3 depriv.	1.39E+1	3.53E-2	1.31E-1	1.40E+1	3.84E-3	1.16E-2	3.21E-3	-6.23E-1	1.34E+1
PM	disease inc.	2.58E-6	5.87E-8	2.46E-8	2.66E-6	7.36E-9	2.05E-8	4.11E-9	6.95E-7	3.39E-6
IR	kBq U-235 eq	8.34E-1	4.17E-2	4.91E-3	8.81E-1	5.47E-3	6.61E-3	3.39E-3	3.84E-2	9.35E-1
ETP-fw	CTUe	9.35E+2	8.84E+0	2.55E+1	9.69E+2	1.02E+0	5.66E+0	4.09E+2	1.71E+2	1.56E+3
HTP-c	CTUh	4.34E-8	2.90E-10	1.32E-9	4.50E-8	3.62E-11	1.62E-9	2.84E-11	1.30E-8	5.96E-8
HTP-nc	CTUh	8.17E-7	9.64E-9	3.25E-8	8.59E-7	1.21E-9	1.28E-8	5.97E-10	2.18E-7	1.09E-6
SQP	Pt	2.96E+2	8.53E+0	4.86E+0	3.09E+2	1.07E+0	1.11E+0	1.48E+0	-2.90E+2	2.35E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.58E+1	9.14E-4	4.51E+1	1.21E+2	1.80E-2	6.44E-2	4.69E-2	-3.72E+1	8.38E+1
PERM	MJ	0	1.23E-1	0	1.23E-1	0	0	0	0	1.23E-1
PERT	MJ	7.58E+1	1.24E-1	4.51E+1	1.21E+2	1.80E-2	6.44E-2	4.69E-2	-3.72E+1	8.39E+1
PENRE	MJ	7.42E+2	1.44E-1	4.45E+0	7.47E+2	1.33E+0	1.81E+0	6.70E-1	-3.42E+1	7.16E+2
PENRM	MJ	0	1.04E+1	0	1.04E+1	0	0	0	0	1.04E+1
PENRT	MJ	7.42E+2	1.06E+1	4.45E+0	7.57E+2	1.33E+0	1.81E+0	6.70E-1	-3.42E+1	7.27E+2
PET	MJ	8.18E+2	1.07E+1	4.95E+1	8.78E+2	1.35E+0	1.88E+0	7.17E-1	-7.14E+1	8.11E+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	3.58E-1	1.20E-3	3.65E-3	3.63E-1	1.42E-4	2.06E-3	7.97E-4	2.00E-2	3.86E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.21E-2	2.50E-5	2.88E-6	1.21E-2	3.20E-6	6.09E-6	7.51E-7	-4.96E-3	7.20E-3
NHWD	kg	6.54E+0	6.23E-1	4.84E-2	7.21E+0	7.76E-2	1.17E-1	2.49E+0	1.81E+0	1.17E+1
RWD	kg	8.85E-4	6.54E-5	4.21E-6	9.54E-4	8.51E-6	9.02E-6	4.23E-6	4.66E-5	1.02E-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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