

Environmental Profile

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

Ecochain v3.5.80



Product: 3075695 - Tigris PEXc/Al/PE Pipe WT 16x2.0 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	2.71E+1	7.07E-1	5.17E-1	2.84E+1	5.81E-2	1.06E+1	1.98E-1	2.15E+0	4.14E+1
GWP-f	kg CO2 eq	2.92E+1	7.07E-1	3.63E-1	3.03E+1	5.81E-2	8.04E+0	1.97E-1	1.36E+0	3.99E+1
GWP-b	kg CO2 eq	-2.13E+0	3.20E-4	1.54E-1	-1.98E+0	3.53E-5	2.58E+0	1.17E-3	7.78E-1	1.38E+0
GWP-luluc	kg CO2 eq	7.74E-2	2.62E-4	2.18E-4	7.78E-2	2.06E-5	4.84E-5	5.28E-6	2.05E-2	9.84E-2
ODP	kg CFC11 eq	1.26E-6	1.56E-7	2.10E-8	1.44E-6	1.34E-8	2.33E-8	5.89E-9	-3.54E-7	1.12E-6
AP	mol H+ eq	1.65E-1	4.33E-3	2.07E-3	1.71E-1	3.31E-4	1.47E-3	1.48E-4	3.70E-2	2.10E-1
EP-fw	kg P eq	1.02E-3	7.08E-6	1.27E-5	1.04E-3	4.78E-7	2.16E-6	2.44E-7	1.40E-4	1.18E-3
EP-m	kg N eq	2.66E-2	1.49E-3	3.17E-4	2.84E-2	1.18E-4	6.21E-4	9.15E-5	4.32E-3	3.36E-2
EP-T	mol N eq	2.97E-1	1.65E-2	3.23E-3	3.17E-1	1.30E-3	6.97E-3	5.98E-4	4.72E-2	3.73E-1
POCP	kg NMVOC eq	9.71E-2	4.69E-3	1.06E-3	1.03E-1	3.73E-4	1.92E-3	2.12E-4	1.36E-2	1.19E-1
ADP-mm	kg Sb eq	2.02E-4	1.78E-5	2.44E-5	2.44E-4	1.50E-6	2.48E-6	1.47E-7	-1.61E-3	-1.36E-3
ADP-f	MJ	5.00E+2	1.06E+1	2.87E+0	5.13E+2	8.91E-1	1.48E+0	4.47E-1	-2.89E+1	4.87E+2
WDP	m3 depriv.	1.00E+1	3.78E-2	8.84E-2	1.02E+1	2.74E-3	1.15E-2	2.28E-3	-8.42E-1	9.35E+0
PM	disease inc.	1.80E-6	6.30E-8	1.67E-8	1.88E-6	5.24E-9	1.67E-8	2.92E-9	4.26E-7	2.33E-6
IR	kBq U-235 eq	6.12E-1	4.46E-2	3.53E-3	6.60E-1	3.90E-3	5.90E-3	2.38E-3	2.73E-3	6.75E-1
ETP-fw	CTUe	6.72E+2	9.46E+0	1.67E+1	6.98E+2	7.24E-1	4.57E+0	2.74E+2	9.13E+1	1.07E+3
HTP-c	CTUh	2.99E-8	3.09E-10	8.68E-10	3.11E-8	2.58E-11	1.23E-9	1.96E-11	8.25E-9	4.06E-8
HTP-nc	CTUh	5.62E-7	1.03E-8	2.13E-8	5.94E-7	8.63E-10	9.73E-9	4.14E-10	1.38E-7	7.43E-7
SQP	Pt	2.73E+2	9.15E+0	3.20E+0	2.86E+2	7.63E-1	9.41E-1	1.05E+0	-2.94E+2	-5.32E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.30E+1	7.26E-4	2.89E+1	9.18E+1	1.28E-2	5.46E-2	3.24E-2	-4.14E+1	5.06E+1
PERM	MJ	0	1.32E-1	0	1.32E-1	0	0	0	0	1.32E-1
PERT	MJ	6.30E+1	1.33E-1	2.89E+1	9.20E+1	1.28E-2	5.46E-2	3.24E-2	-4.14E+1	5.07E+1
PENRE	MJ	5.34E+2	1.14E-1	3.08E+0	5.38E+2	9.46E-1	1.58E+0	4.74E-1	-3.46E+1	5.06E+2
PENRM	MJ	0	1.12E+1	0	1.12E+1	0	0	0	0	1.12E+1
PENRT	MJ	5.34E+2	1.13E+1	3.08E+0	5.49E+2	9.46E-1	1.58E+0	4.74E-1	-3.46E+1	5.17E+2
PET	MJ	5.97E+2	1.14E+1	3.19E+1	6.41E+2	9.59E-1	1.63E+0	5.06E-1	-7.60E+1	5.68E+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	2.56E-1	1.29E-3	2.45E-3	2.60E-1	1.01E-4	1.63E-3	5.64E-4	2.17E-3	2.64E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.14E-3	2.68E-5	2.21E-6	8.17E-3	2.28E-6	5.09E-6	5.32E-7	-3.34E-3	4.84E-3
NHWD	kg	4.58E+0	6.68E-1	3.70E-2	5.29E+0	5.52E-2	9.73E-2	1.77E+0	1.16E+0	8.37E+0
RWD	kg	6.53E-4	6.99E-5	3.23E-6	7.26E-4	6.06E-6	8.13E-6	2.99E-6	7.46E-6	7.51E-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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