

Environmental Profile

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

Ecochain v3.5.80



Product: 3017597 - Tigris PERT/Al/PE Pipe BL 16x2.0 L=500
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	2.58E+2	5.63E+0	3.69E+0	2.68E+2	5.73E-1	8.56E+1	1.95E+0	2.20E+1	3.78E+2
GWP-f	kg CO2 eq	2.65E+2	5.63E+0	2.45E+0	2.73E+2	5.72E-1	7.74E+1	1.94E+0	2.03E+1	3.74E+2
GWP-b	kg CO2 eq	-7.47E+0	2.53E-3	1.24E+0	-6.22E+0	3.47E-4	8.19E+0	1.16E-2	1.44E+0	3.41E+0
GWP-luluc	kg CO2 eq	7.14E-1	2.09E-3	1.28E-3	7.17E-1	2.02E-4	2.71E-4	5.22E-5	2.56E-1	9.74E-1
ODP	kg CFC11 eq	9.96E-6	1.24E-6	1.43E-7	1.13E-5	1.32E-7	1.26E-7	5.81E-8	-2.71E-6	8.95E-6
AP	mol H+ eq	1.51E+0	3.49E-2	1.19E-2	1.56E+0	3.26E-3	1.08E-2	1.46E-3	4.13E-1	1.99E+0
EP-fw	kg P eq	7.93E-3	5.63E-5	7.59E-5	8.06E-3	4.71E-6	1.34E-5	2.41E-6	2.05E-3	1.01E-2
EP-m	kg N eq	2.35E-1	1.20E-2	2.05E-3	2.49E-1	1.17E-3	4.70E-3	9.01E-4	5.39E-2	3.10E-1
EP-T	mol N eq	2.62E+0	1.32E-1	2.00E-2	2.78E+0	1.28E-2	5.32E-2	5.90E-3	5.97E-1	3.45E+0
POCP	kg NMVOC eq	8.76E-1	3.76E-2	6.51E-3	9.20E-1	3.67E-3	1.44E-2	2.09E-3	1.72E-1	1.11E+0
ADP-mm	kg Sb eq	1.70E-3	1.41E-4	1.33E-4	1.98E-3	1.48E-5	9.65E-6	1.45E-6	-1.60E-2	-1.40E-2
ADP-f	MJ	4.56E+3	8.47E+1	1.87E+1	4.67E+3	8.78E+0	7.63E+0	4.41E+0	-1.75E+2	4.51E+3
WDP	m3 depriv.	9.39E+1	3.01E-1	5.43E-1	9.47E+1	2.69E-2	5.73E-2	2.22E-2	1.27E+0	9.61E+1
PM	disease inc.	1.65E-5	5.00E-7	1.05E-7	1.71E-5	5.16E-8	1.10E-7	2.88E-8	5.13E-6	2.24E-5
IR	kBq U-235 eq	4.86E+0	3.55E-1	2.51E-2	5.24E+0	3.84E-2	2.72E-2	2.36E-2	5.20E-1	5.85E+0
ETP-fw	CTUe	5.67E+3	7.53E+1	9.57E+1	5.84E+3	7.13E+0	3.26E+1	2.74E+3	1.45E+3	1.01E+4
HTP-c	CTUh	2.81E-7	2.47E-9	4.99E-9	2.88E-7	2.54E-10	1.07E-8	1.94E-10	9.16E-8	3.91E-7
HTP-nc	CTUh	5.29E-6	8.21E-8	1.20E-7	5.49E-6	8.50E-9	8.28E-8	4.11E-9	1.56E-6	7.14E-6
SQP	Pt	1.14E+3	7.27E+1	1.85E+1	1.23E+3	7.51E+0	5.10E+0	1.04E+1	-7.60E+2	4.94E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.75E+2	7.26E-3	1.55E+2	5.30E+2	1.26E-1	3.26E-1	3.22E-1	-5.17E+1	4.79E+2
PERM	MJ	0	1.05E+0	0	1.05E+0	0	0	0	0	1.05E+0
PERT	MJ	3.75E+2	1.05E+0	1.55E+2	5.31E+2	1.26E-1	3.26E-1	3.22E-1	-5.17E+1	4.80E+2
PENRE	MJ	4.88E+3	1.14E+0	2.01E+1	4.90E+3	9.32E+0	8.15E+0	4.68E+0	-2.24E+2	4.70E+3
PENRM	MJ	0	8.88E+1	0	8.88E+1	0	0	0	0	8.88E+1
PENRT	MJ	4.88E+3	8.99E+1	2.01E+1	4.99E+3	9.32E+0	8.15E+0	4.68E+0	-2.24E+2	4.79E+3
PET	MJ	5.25E+3	9.10E+1	1.75E+2	5.52E+3	9.45E+0	8.47E+0	5.00E+0	-2.76E+2	5.27E+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	2.33E+0	1.02E-2	1.50E-2	2.35E+0	9.94E-4	1.30E-2	5.56E-3	2.77E-1	2.65E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.10E-2	2.13E-4	1.78E-5	8.12E-2	2.25E-5	3.14E-5	5.25E-6	-3.32E-2	4.80E-2
NHWD	kg	3.81E+1	5.31E+0	2.94E-1	4.37E+1	5.44E-1	6.05E-1	1.75E+1	1.27E+1	7.50E+1
RWD	kg	4.94E-3	5.57E-4	2.60E-5	5.52E-3	5.97E-5	3.55E-5	2.95E-5	5.68E-4	6.22E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777