

Environmental Profile

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

Ecochain v3.5.80



Product: 3059250 - Tigris PERT/Al/PE Pipe WT 25x2.5 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	5.91E+1	1.06E+0	7.85E-1	6.09E+1	1.19E-1	1.72E+1	3.87E-1	7.37E+0	8.60E+1
GWP-f	kg CO2 eq	6.03E+1	1.06E+0	5.16E-1	6.19E+1	1.19E-1	1.54E+1	3.85E-1	6.41E+0	8.42E+1
GWP-b	kg CO2 eq	-1.41E+0	4.80E-4	2.69E-1	-1.14E+0	7.20E-5	1.82E+0	2.70E-3	9.09E-1	1.59E+0
GWP-luluc	kg CO2 eq	1.69E-1	3.94E-4	2.61E-4	1.70E-1	4.20E-5	7.03E-5	1.13E-5	5.69E-2	2.27E-1
ODP	kg CFC11 eq	2.35E-6	2.34E-7	3.00E-8	2.61E-6	2.73E-8	3.40E-8	1.22E-8	-4.81E-7	2.20E-6
AP	mol H+ eq	3.54E-1	6.52E-3	2.44E-3	3.63E-1	6.75E-4	2.44E-3	3.07E-4	9.68E-2	4.63E-1
EP-fw	kg P eq	1.87E-3	1.06E-5	1.56E-5	1.89E-3	9.75E-7	3.33E-6	5.22E-7	4.39E-4	2.34E-3
EP-m	kg N eq	5.47E-2	2.25E-3	4.28E-4	5.74E-2	2.42E-4	1.05E-3	1.83E-4	1.27E-2	7.16E-2
EP-T	mol N eq	6.09E-1	2.48E-2	4.14E-3	6.38E-1	2.66E-3	1.18E-2	1.24E-3	1.40E-1	7.93E-1
POCP	kg NMVOC eq	1.99E-1	7.06E-3	1.35E-3	2.08E-1	7.61E-4	3.23E-3	4.35E-4	4.08E-2	2.53E-1
ADP-mm	kg Sb eq	3.65E-4	2.67E-5	2.69E-5	4.19E-4	3.07E-6	3.28E-6	3.06E-7	-3.78E-3	-3.36E-3
ADP-f	MJ	9.82E+2	1.60E+1	3.92E+0	1.00E+3	1.82E+0	2.14E+0	9.28E-1	-1.45E+1	9.92E+2
WDP	m3 depriv.	1.99E+1	5.69E-2	1.12E-1	2.01E+1	5.58E-3	1.06E-2	4.75E-3	-4.37E-1	1.97E+1
PM	disease inc.	3.86E-6	9.46E-8	2.19E-8	3.98E-6	1.07E-8	2.73E-8	6.01E-9	1.17E-6	5.19E-6
IR	kBq U-235 eq	1.11E+0	6.70E-2	5.34E-3	1.18E+0	7.95E-3	8.12E-3	5.03E-3	9.87E-2	1.30E+0
ETP-fw	CTUe	1.40E+3	1.42E+1	1.95E+1	1.43E+3	1.48E+0	7.55E+0	6.48E+2	3.04E+2	2.39E+3
HTP-c	CTUh	6.63E-8	4.65E-10	1.02E-9	6.78E-8	5.26E-11	2.25E-9	4.32E-11	2.16E-8	9.17E-8
HTP-nc	CTUh	1.24E-6	1.55E-8	2.45E-8	1.28E-6	1.76E-9	1.75E-8	9.04E-10	3.59E-7	1.66E-6
SQP	Pt	2.60E+2	1.38E+1	3.78E+0	2.77E+2	1.56E+0	1.42E+0	2.15E+0	-2.55E+2	2.70E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	8.75E+1	1.15E-3	3.11E+1	1.19E+2	2.61E-2	8.18E-2	7.14E-2	-2.68E+1	9.20E+1
PERM	MJ	0	1.98E-1	0	1.98E-1	0	0	0	0	1.98E-1
PERT	MJ	8.75E+1	1.99E-1	3.11E+1	1.19E+2	2.61E-2	8.18E-2	7.14E-2	-2.68E+1	9.22E+1
PENRE	MJ	1.05E+3	1.81E-1	4.21E+0	1.05E+3	1.93E+0	2.28E+0	9.83E-1	-2.30E+1	1.04E+3
PENRM	MJ	0	1.68E+1	0	1.68E+1	0	0	0	0	1.68E+1
PENRT	MJ	1.05E+3	1.70E+1	4.21E+0	1.07E+3	1.93E+0	2.28E+0	9.83E-1	-2.30E+1	1.05E+3
PET	MJ	1.14E+3	1.72E+1	3.53E+1	1.19E+3	1.96E+0	2.36E+0	1.05E+0	-4.98E+1	1.14E+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	5.23E-1	1.94E-3	3.11E-3	5.28E-1	2.06E-4	2.68E-3	1.17E-3	4.65E-2	5.78E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.92E-2	4.03E-5	3.86E-6	1.92E-2	4.65E-6	7.93E-6	1.10E-6	-7.83E-3	1.14E-2
NHWD	kg	9.15E+0	1.00E+0	6.37E-2	1.02E+1	1.13E-1	1.50E-1	3.62E+0	2.98E+0	1.71E+1
RWD	kg	1.13E-3	1.05E-4	5.64E-6	1.25E-3	1.24E-5	1.10E-5	6.22E-6	1.16E-4	1.39E-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