

Environmental Profile

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

Ecochain v3.5.80



Product: 3052202 - Tigris PERT/Al/PE Pipe WT 16x2.0 L=600
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	3.16E+2	6.76E+0	8.99E+0	3.32E+2	6.87E-1	1.00E+2	2.33E+0	2.80E+1	4.63E+2
GWP-f	kg CO2 eq	3.21E+2	6.76E+0	7.53E+0	3.35E+2	6.86E-1	9.30E+1	2.32E+0	2.39E+1	4.55E+2
GWP-b	kg CO2 eq	-5.59E+0	3.04E-3	1.45E+0	-4.13E+0	4.17E-4	7.41E+0	1.40E-2	3.82E+0	7.11E+0
GWP-luluc	kg CO2 eq	8.67E-1	2.51E-3	6.21E-3	8.76E-1	2.43E-4	3.71E-4	6.28E-5	2.95E-1	1.17E+0
ODP	kg CFC11 eq	1.23E-5	1.49E-6	4.31E-7	1.42E-5	1.58E-7	1.76E-7	6.97E-8	-3.32E-6	1.13E-5
AP	mol H+ eq	1.85E+0	4.19E-2	6.06E-2	1.96E+0	3.91E-3	1.38E-2	1.75E-3	4.89E-1	2.47E+0
EP-fw	kg P eq	9.69E-3	6.76E-5	3.49E-4	1.01E-2	5.65E-6	1.79E-5	2.90E-6	2.29E-3	1.24E-2
EP-m	kg N eq	2.86E-1	1.44E-2	7.33E-3	3.08E-1	1.40E-3	5.95E-3	1.08E-3	6.33E-2	3.80E-1
EP-T	mol N eq	3.18E+0	1.59E-1	8.21E-2	3.43E+0	1.54E-2	6.71E-2	7.09E-3	7.01E-1	4.22E+0
POCP	kg NMVOC eq	1.06E+0	4.52E-2	2.75E-2	1.13E+0	4.41E-3	1.83E-2	2.51E-3	2.03E-1	1.36E+0
ADP-mm	kg Sb eq	2.01E-3	1.69E-4	7.76E-4	2.96E-3	1.78E-5	1.55E-5	1.75E-6	-1.92E-2	-1.62E-2
ADP-f	MJ	5.51E+3	1.02E+2	6.50E+1	5.67E+3	1.05E+1	1.08E+1	5.30E+0	-2.16E+2	5.48E+3
WDP	m3 depriv.	1.15E+2	3.61E-1	2.29E+0	1.17E+2	3.23E-2	8.03E-2	2.74E-2	-1.35E+0	1.16E+2
PM	disease inc.	2.00E-5	6.01E-7	4.11E-7	2.10E-5	6.20E-8	1.46E-7	3.45E-8	6.02E-6	2.73E-5
IR	kBq U-235 eq	5.96E+0	4.26E-1	6.22E-2	6.45E+0	4.61E-2	3.98E-2	2.83E-2	5.18E-1	7.08E+0
ETP-fw	CTUe	7.09E+3	9.04E+1	4.94E+2	7.68E+3	8.56E+0	4.26E+1	3.29E+3	1.60E+3	1.26E+4
HTP-c	CTUh	3.42E-7	2.96E-9	2.53E-8	3.70E-7	3.04E-10	1.35E-8	2.34E-10	1.10E-7	4.94E-7
HTP-nc	CTUh	6.41E-6	9.86E-8	6.35E-7	7.14E-6	1.02E-8	1.03E-7	4.93E-9	1.84E-6	9.09E-6
SQP	Pt	1.18E+3	8.73E+1	9.24E+1	1.36E+3	9.02E+0	6.98E+0	1.24E+1	-1.05E+3	3.39E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.29E+2	8.71E-3	9.39E+2	1.37E+3	1.51E-1	4.39E-1	3.86E-1	-9.51E+1	1.27E+3
PERM	MJ	0	1.26E+0	0	1.26E+0	0	0	0	0	1.26E+0
PERT	MJ	4.29E+2	1.27E+0	9.39E+2	1.37E+3	1.51E-1	4.39E-1	3.86E-1	-9.51E+1	1.27E+3
PENRE	MJ	5.89E+3	1.37E+0	6.95E+1	5.96E+3	1.12E+1	1.15E+1	5.61E+0	-2.75E+2	5.71E+3
PENRM	MJ	0	1.07E+2	0	1.07E+2	0	0	0	0	1.07E+2
PENRT	MJ	5.89E+3	1.08E+2	6.95E+1	6.06E+3	1.12E+1	1.15E+1	5.61E+0	-2.75E+2	5.82E+3
PET	MJ	6.32E+3	1.09E+2	1.01E+3	7.43E+3	1.13E+1	1.20E+1	6.00E+0	-3.70E+2	7.09E+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	2.86E+0	1.23E-2	6.38E-2	2.93E+0	1.19E-3	1.62E-2	6.67E-3	2.59E-1	3.22E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.72E-2	2.56E-4	2.15E-5	9.75E-2	2.69E-5	4.26E-5	6.30E-6	-3.99E-2	5.77E-2
NHWD	kg	4.72E+1	6.37E+0	3.89E-1	5.39E+1	6.53E-1	7.94E-1	2.10E+1	1.52E+1	9.15E+1
RWD	kg	6.06E-3	6.68E-4	3.15E-5	6.76E-3	7.17E-5	5.30E-5	3.54E-5	5.86E-4	7.50E-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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