

Environmental Profile

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

Ecochain v3.5.80



Product: 3061215 - PEXc/EVOH Pipe IV 15x2.5 L=100
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	1.98E+1	1.24E+0	9.10E-1	2.20E+1	1.06E-1	2.47E+1	4.67E-1	-1.24E+1	3.49E+1
GWP-f	kg CO2 eq	2.44E+1	1.24E+0	6.33E-1	2.63E+1	1.06E-1	1.95E+1	4.67E-1	-1.32E+1	3.31E+1
GWP-b	kg CO2 eq	-4.61E+0	5.26E-4	2.76E-1	-4.33E+0	6.45E-5	5.26E+0	3.54E-4	8.47E-1	1.77E+0
GWP-luluc	kg CO2 eq	1.89E-2	4.73E-4	3.74E-4	1.97E-2	3.76E-5	7.77E-5	6.80E-6	-8.62E-3	1.12E-2
ODP	kg CFC11 eq	9.92E-7	2.72E-7	3.67E-8	1.30E-6	2.45E-8	3.53E-8	1.00E-8	-1.40E-6	-3.04E-8
AP	mol H+ eq	9.21E-2	8.93E-3	3.54E-3	1.05E-1	6.05E-4	2.88E-3	2.40E-4	-1.69E-2	9.14E-2
EP-fw	kg P eq	7.73E-4	1.21E-5	2.19E-5	8.07E-4	8.74E-7	3.54E-6	3.13E-7	-1.19E-4	6.93E-4
EP-m	kg N eq	1.78E-2	2.93E-3	5.49E-4	2.13E-2	2.16E-4	1.26E-3	1.80E-4	-4.94E-3	1.80E-2
EP-T	mol N eq	2.02E-1	3.23E-2	5.56E-3	2.40E-1	2.38E-3	1.42E-2	9.74E-4	-5.57E-2	2.02E-1
POCP	kg NMVOC eq	8.33E-2	9.06E-3	1.83E-3	9.42E-2	6.82E-4	3.84E-3	3.81E-4	-1.78E-2	8.12E-2
ADP-mm	kg Sb eq	2.89E-4	3.02E-5	4.15E-5	3.61E-4	2.75E-6	3.17E-6	2.41E-7	-1.99E-5	3.47E-4
ADP-f	MJ	7.60E+2	1.86E+1	4.98E+0	7.83E+2	1.63E+0	2.12E+0	7.34E-1	-2.21E+2	5.67E+2
WDP	m3 depriv.	1.65E+1	6.45E-2	1.52E-1	1.67E+1	5.00E-3	4.68E-2	3.48E-3	-1.81E+0	1.49E+1
PM	disease inc.	8.65E-7	1.08E-7	2.89E-8	1.00E-6	9.58E-9	2.66E-8	5.04E-9	-1.96E-7	8.47E-7
IR	kBq U-235 eq	6.83E-1	7.78E-2	6.21E-3	7.67E-1	7.12E-3	8.13E-3	3.42E-3	-1.38E-1	6.47E-1
ETP-fw	CTUe	2.78E+2	1.63E+1	2.86E+1	3.23E+2	1.32E+0	7.86E+0	6.78E-1	-9.86E+1	2.34E+2
HTP-c	CTUh	8.97E-9	5.48E-10	1.48E-9	1.10E-8	4.71E-11	2.64E-9	1.80E-11	-3.06E-9	1.06E-8
HTP-nc	CTUh	1.85E-7	1.77E-8	3.62E-8	2.39E-7	1.58E-9	2.08E-8	4.19E-10	-4.25E-8	2.19E-7
SQP	Pt	4.86E+2	1.55E+1	5.46E+0	5.06E+2	1.39E+0	1.12E+0	1.88E+0	-5.01E+2	1.02E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	8.19E+1	5.34E-3	4.89E+1	1.31E+2	2.34E-2	9.19E-2	2.91E-2	-7.94E+1	5.14E+1
PERM	MJ	0	2.22E-1	0	2.22E-1	0	0	0	0	2.22E-1
PERT	MJ	8.19E+1	2.27E-1	4.89E+1	1.31E+2	2.34E-2	9.19E-2	2.91E-2	-7.94E+1	5.17E+1
PENRE	MJ	8.15E+2	8.77E-1	5.35E+0	8.21E+2	1.73E+0	2.26E+0	7.78E-1	-2.44E+2	5.82E+2
PENRM	MJ	0	1.88E+1	0	1.88E+1	0	0	0	0	1.88E+1
PENRT	MJ	8.15E+2	1.97E+1	5.35E+0	8.40E+2	1.73E+0	2.26E+0	7.78E-1	-2.44E+2	6.01E+2
PET	MJ	8.97E+2	1.99E+1	5.42E+1	9.71E+2	1.75E+0	2.35E+0	8.07E-1	-3.23E+2	6.53E+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	2.83E-1	2.20E-3	4.23E-3	2.90E-1	1.84E-4	4.16E-3	9.06E-4	-4.86E-2	2.46E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.86E-4	4.57E-5	3.97E-6	2.36E-4	4.17E-6	8.47E-6	8.81E-7	-2.81E-4	-3.20E-5
NHWD	kg	2.02E+0	1.13E+0	6.63E-2	3.22E+0	1.01E-1	1.66E-1	3.23E+0	-3.33E-1	6.38E+0
RWD	kg	7.00E-4	1.22E-4	5.80E-6	8.28E-4	1.11E-5	1.07E-5	4.80E-6	-1.64E-4	6.91E-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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