

Environmental Profile

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

Ecochain v3.5.80



Product: 3080949 - PEXc/EVOH Pipe IV 15x2.5 L=300
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	6.19E+1	3.65E+0	1.02E+1	7.57E+1	3.19E-1	6.84E+1	1.40E+0	-3.69E+1	1.09E+2
GWP-f	kg CO2 eq	7.08E+1	3.65E+0	9.50E+0	8.40E+1	3.19E-1	5.81E+1	1.40E+0	-3.81E+1	1.06E+2
GWP-b	kg CO2 eq	-8.95E+0	1.55E-3	6.70E-1	-8.28E+0	1.93E-4	1.03E+1	1.06E-3	1.26E+0	3.31E+0
GWP-luluc	kg CO2 eq	4.65E-2	1.39E-3	8.97E-3	5.69E-2	1.13E-4	1.85E-4	2.04E-5	-1.46E-2	4.26E-2
ODP	kg CFC11 eq	2.67E-6	8.02E-7	5.40E-7	4.01E-6	7.34E-8	8.22E-8	3.01E-8	-4.02E-6	1.81E-7
AP	mol H+ eq	2.62E-1	2.64E-2	8.81E-2	3.77E-1	1.81E-3	7.78E-3	7.20E-4	-4.04E-2	3.47E-1
EP-fw	kg P eq	2.19E-3	3.56E-5	4.98E-4	2.73E-3	2.62E-6	8.82E-6	9.38E-7	-2.14E-4	2.52E-3
EP-m	kg N eq	4.92E-2	8.63E-3	9.75E-3	6.76E-2	6.49E-4	3.44E-3	5.39E-4	-1.22E-2	6.00E-2
EP-T	mol N eq	5.63E-1	9.53E-2	1.14E-1	7.72E-1	7.15E-3	3.90E-2	2.92E-3	-1.37E-1	6.84E-1
POCP	kg NMVOC eq	2.37E-1	2.67E-2	3.84E-2	3.02E-1	2.05E-3	1.05E-2	1.14E-3	-4.45E-2	2.71E-1
ADP-mm	kg Sb eq	8.15E-4	8.89E-5	1.16E-3	2.06E-3	8.24E-6	6.22E-6	7.23E-7	-3.99E-5	2.04E-3
ADP-f	MJ	2.24E+3	5.46E+1	8.58E+1	2.38E+3	4.89E+0	4.76E+0	2.20E+0	-6.37E+2	1.75E+3
WDP	m3 depriv.	4.85E+1	1.90E-1	3.19E+0	5.19E+1	1.50E-2	1.28E-1	1.04E-2	-3.42E+0	4.86E+1
PM	disease inc.	2.36E-6	3.16E-7	5.62E-7	3.24E-6	2.88E-8	6.76E-8	1.51E-8	-3.78E-7	2.97E-6
IR	kBq U-235 eq	1.93E+0	2.29E-1	7.11E-2	2.23E+0	2.14E-2	1.72E-2	1.03E-2	-3.03E-1	1.98E+0
ETP-fw	CTUe	6.48E+2	4.80E+1	7.21E+2	1.42E+3	3.97E+0	2.09E+1	2.03E+0	-1.80E+2	1.26E+3
HTP-c	CTUh	2.39E-8	1.61E-9	3.68E-8	6.24E-8	1.41E-10	7.64E-9	5.39E-11	-6.68E-9	6.35E-8
HTP-nc	CTUh	5.15E-7	5.21E-8	9.31E-7	1.50E-6	4.73E-9	5.96E-8	1.26E-9	-8.74E-8	1.48E-6
SQP	Pt	9.92E+2	4.55E+1	1.34E+2	1.17E+3	4.18E+0	2.37E+0	5.64E+0	-9.29E+2	2.55E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.75E+2	1.60E-2	1.41E+3	1.59E+3	7.01E-2	2.27E-1	8.74E-2	-1.45E+2	1.44E+3
PERM	MJ	0	6.52E-1	0	6.52E-1	0	0	0	0	6.52E-1
PERT	MJ	1.75E+2	6.68E-1	1.41E+3	1.59E+3	7.01E-2	2.27E-1	8.74E-2	-1.45E+2	1.44E+3
PENRE	MJ	2.40E+3	2.63E+0	9.14E+1	2.50E+3	5.19E+0	5.09E+0	2.34E+0	-7.05E+2	1.80E+3
PENRM	MJ	0	5.53E+1	0	5.53E+1	0	0	0	0	5.53E+1
PENRT	MJ	2.40E+3	5.80E+1	9.14E+1	2.55E+3	5.19E+0	5.09E+0	2.34E+0	-7.05E+2	1.86E+3
PET	MJ	2.58E+3	5.86E+1	1.50E+3	4.14E+3	5.26E+0	5.31E+0	2.42E+0	-8.50E+2	3.30E+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	8.22E-1	6.47E-3	8.92E-2	9.18E-1	5.53E-4	1.18E-2	2.72E-3	-9.23E-2	8.40E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.89E-4	1.34E-4	1.08E-5	6.35E-4	1.25E-5	2.12E-5	2.64E-6	-7.98E-4	-1.28E-4
NHWD	kg	5.37E+0	3.31E+0	2.37E-1	8.92E+0	3.03E-1	4.13E-1	9.69E+0	-7.06E-1	1.86E+1
RWD	kg	1.97E-3	3.59E-4	1.58E-5	2.34E-3	3.33E-5	2.17E-5	1.44E-5	-3.78E-4	2.04E-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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