

Environmental Profile

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

Ecochain v3.5.80



Product: 3074035 - PEXc/EVOH Pipe IV 12x2.0 L=50 CorBK
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	1.50E+1	5.40E-1	1.98E+2	2.14E+2	3.53E-2	1.21E+1	1.55E-1	-4.45E+0	2.22E+2
GWP-f	kg CO2 eq	2.01E+1	5.39E-1	2.00E+2	2.21E+2	3.53E-2	6.86E+0	1.55E-1	-5.32E+0	2.22E+2
GWP-b	kg CO2 eq	-5.05E+0	2.31E-4	-1.88E+0	-6.93E+0	2.14E-5	5.27E+0	1.18E-4	8.85E-1	-7.68E-1
GWP-luluc	kg CO2 eq	1.71E-2	2.05E-4	2.04E-1	2.22E-1	1.25E-5	5.31E-5	2.28E-6	-8.62E-3	2.13E-1
ODP	kg CFC11 eq	9.69E-7	1.19E-7	1.13E-5	1.24E-5	8.14E-9	2.47E-8	3.34E-9	-5.80E-7	1.19E-5
AP	mol H+ eq	8.56E-2	3.79E-3	2.02E+0	2.11E+0	2.01E-4	1.44E-3	8.00E-5	-1.15E-2	2.10E+0
EP-fw	kg P eq	5.12E-4	5.29E-6	1.13E-2	1.18E-2	2.91E-7	2.19E-6	1.05E-7	-1.12E-4	1.17E-2
EP-m	kg N eq	1.61E-2	1.25E-3	2.12E-1	2.30E-1	7.20E-5	6.01E-4	6.03E-5	-3.13E-3	2.27E-1
EP-T	mol N eq	1.78E-1	1.38E-2	2.54E+0	2.73E+0	7.93E-4	6.73E-3	3.24E-4	-3.58E-2	2.70E+0
POCP	kg NMVOC eq	7.12E-2	3.89E-3	8.58E-1	9.33E-1	2.27E-4	1.86E-3	1.27E-4	-1.13E-2	9.24E-1
ADP-mm	kg Sb eq	2.00E-4	1.32E-5	2.69E-2	2.71E-2	9.13E-7	2.78E-6	8.04E-8	-1.81E-5	2.71E-2
ADP-f	MJ	5.91E+2	8.08E+0	1.86E+3	2.46E+3	5.42E-1	1.59E+0	2.44E-1	-8.95E+1	2.37E+3
WDP	m3 depriv.	1.19E+1	2.82E-2	7.14E+1	8.33E+1	1.66E-3	2.27E-2	1.21E-3	-1.60E+0	8.17E+1
PM	disease inc.	8.50E-7	4.70E-8	1.24E-5	1.33E-5	3.19E-9	1.55E-8	1.68E-9	-1.81E-7	1.32E-5
IR	kBq U-235 eq	5.47E-1	3.39E-2	1.39E+0	1.98E+0	2.37E-3	6.61E-3	1.14E-3	-1.05E-1	1.88E+0
ETP-fw	CTUe	3.22E+2	7.12E+0	1.65E+4	1.69E+4	4.40E-1	4.13E+0	2.28E-1	-9.13E+1	1.68E+4
HTP-c	CTUh	8.08E-9	2.38E-10	8.43E-7	8.52E-7	1.57E-11	1.09E-9	6.02E-12	-2.55E-9	8.50E-7
HTP-nc	CTUh	1.62E-7	7.73E-9	2.14E-5	2.16E-5	5.25E-10	8.70E-9	1.40E-10	-3.61E-8	2.15E-5
SQP	Pt	4.95E+2	6.78E+0	3.06E+3	3.56E+3	4.64E-1	9.36E-1	6.26E-1	-5.03E+2	3.06E+3
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	8.03E+1	2.04E-3	3.29E+4	3.29E+4	7.78E-3	5.81E-2	9.67E-3	-8.03E+1	3.29E+4
PERM	MJ	0	9.72E-2	0	9.72E-2	0	0	0	0	9.72E-2
PERT	MJ	8.03E+1	9.92E-2	3.29E+4	3.29E+4	7.78E-3	5.81E-2	9.67E-3	-8.03E+1	3.29E+4
PENRE	MJ	6.34E+2	3.35E-1	1.98E+3	2.61E+3	5.75E-1	1.69E+0	2.59E-1	-9.84E+1	2.51E+3
PENRM	MJ	0	8.24E+0	0	8.24E+0	0	0	0	0	8.24E+0
PENRT	MJ	6.34E+2	8.58E+0	1.98E+3	2.62E+3	5.75E-1	1.69E+0	2.59E-1	-9.84E+1	2.52E+3
PET	MJ	7.14E+2	8.68E+0	3.48E+4	3.56E+4	5.83E-1	1.75E+0	2.69E-1	-1.79E+2	3.54E+4
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	2.45E-1	9.61E-4	2.00E+0	2.24E+0	6.13E-5	1.80E-3	3.01E-4	-4.27E-2	2.20E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.44E-4	2.00E-5	3.63E-6	1.68E-4	1.39E-6	5.15E-6	2.94E-7	-1.22E-4	5.24E-5
NHWD	kg	1.46E+0	4.93E-1	1.49E+0	3.44E+0	3.36E-2	1.11E-1	1.07E+0	-2.86E-1	4.38E+0
RWD	kg	5.53E-4	5.32E-5	4.92E-6	6.11E-4	3.69E-6	9.13E-6	1.60E-6	-1.16E-4	5.10E-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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