

Environmental Profile

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

Ecochain v3.5.80



Product: 3061407 - PERT/EVOH Pipe IV 20x2.0 L=480 Soft
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]

Statement of Confidentiality

This document and supporting material contain confidential and proprietary business information of Wavin - PL - MPC. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - PL - MPC.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	9.90E+1	3.80E+0	4.02E+0	1.07E+2	5.80E-1	1.18E+2	2.55E+0	-6.77E+1	1.60E+2
GWP-f	kg CO2 eq	1.11E+2	3.79E+0	2.74E+0	1.17E+2	5.80E-1	1.06E+2	2.55E+0	-6.78E+1	1.59E+2
GWP-b	kg CO2 eq	-1.20E+1	1.50E-3	1.28E+0	-1.07E+1	3.52E-4	1.25E+1	1.93E-3	9.68E-2	1.92E+0
GWP-luluc	kg CO2 eq	5.30E-2	1.49E-3	1.54E-3	5.60E-2	2.05E-4	2.67E-4	3.70E-5	-8.78E-3	4.77E-2
ODP	kg CFC11 eq	3.15E-6	8.30E-7	1.59E-7	4.14E-6	1.34E-7	1.14E-7	5.48E-8	-7.10E-6	-2.67E-6
AP	mol H+ eq	4.10E-1	3.15E-2	1.45E-2	4.56E-1	3.30E-3	1.29E-2	1.31E-3	-5.87E-2	4.15E-1
EP-fw	kg P eq	2.01E-3	3.61E-5	9.06E-5	2.14E-3	4.77E-6	1.33E-5	1.70E-6	-1.67E-4	1.99E-3
EP-m	kg N eq	7.17E-2	9.89E-3	2.34E-3	8.39E-2	1.18E-3	5.81E-3	9.80E-4	-1.87E-2	7.32E-2
EP-T	mol N eq	8.06E-1	1.09E-1	2.34E-2	9.38E-1	1.30E-2	6.60E-2	5.32E-3	-2.07E-1	8.16E-1
POCP	kg NMVOC eq	3.79E-1	3.03E-2	7.65E-3	4.17E-1	3.72E-3	1.76E-2	2.08E-3	-6.90E-2	3.71E-1
ADP-mm	kg Sb eq	1.28E-3	8.97E-5	1.67E-4	1.54E-3	1.50E-5	6.19E-6	1.31E-6	-4.61E-5	1.52E-3
ADP-f	MJ	3.82E+3	5.64E+1	2.13E+1	3.90E+3	8.90E+0	6.28E+0	4.01E+0	-1.13E+3	2.79E+3
WDP	m3 depriv.	8.70E+1	1.92E-1	6.38E-1	8.78E+1	2.73E-2	2.17E-1	1.85E-2	-2.91E+0	8.52E+1
PM	disease inc.	3.57E-6	3.20E-7	1.22E-7	4.01E-6	5.23E-8	1.05E-7	2.75E-8	-3.87E-7	3.81E-6
IR	kBq U-235 eq	2.63E+0	2.37E-1	2.74E-2	2.89E+0	3.89E-2	2.07E-2	1.87E-2	-3.84E-1	2.58E+0
ETP-fw	CTUe	7.37E+2	4.91E+1	1.17E+2	9.03E+2	7.23E+0	3.36E+1	3.70E+0	-1.41E+2	8.07E+2
HTP-c	CTUh	3.60E-8	1.69E-9	6.07E-9	4.38E-8	2.57E-10	1.33E-8	9.77E-11	-8.98E-9	4.84E-8
HTP-nc	CTUh	7.45E-7	5.29E-8	1.48E-7	9.46E-7	8.62E-9	1.04E-7	2.28E-9	-9.99E-8	9.61E-7
SQP	Pt	1.19E+3	4.56E+1	2.24E+1	1.26E+3	7.62E+0	2.89E+0	1.03E+1	-9.22E+2	3.58E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.16E+2	2.92E-2	1.96E+2	4.12E+2	1.28E-1	3.40E-1	1.59E-1	-1.37E+2	2.75E+2
PERM	MJ	0	6.50E-1	0	6.50E-1	0	0	0	0	6.50E-1
PERT	MJ	2.16E+2	6.79E-1	1.96E+2	4.12E+2	1.28E-1	3.40E-1	1.59E-1	-1.37E+2	2.76E+2
PENRE	MJ	4.10E+3	4.79E+0	2.29E+1	4.13E+3	9.45E+0	6.72E+0	4.25E+0	-1.25E+3	2.89E+3
PENRM	MJ	0	5.51E+1	0	5.51E+1	0	0	0	0	5.51E+1
PENRT	MJ	4.10E+3	5.99E+1	2.29E+1	4.18E+3	9.45E+0	6.72E+0	4.25E+0	-1.25E+3	2.95E+3
PET	MJ	4.32E+3	6.06E+1	2.18E+2	4.60E+3	9.58E+0	7.06E+0	4.41E+0	-1.39E+3	3.23E+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	1.39E+0	6.54E-3	1.77E-2	1.42E+0	1.01E-3	2.06E-2	4.95E-3	-8.00E-2	1.36E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.13E-4	1.36E-4	1.83E-5	7.67E-4	2.28E-5	3.21E-5	4.81E-6	-1.40E-3	-5.76E-4
NHWD	kg	4.77E+0	3.30E+0	3.05E-1	8.38E+0	5.52E-1	6.52E-1	1.76E+1	-9.06E-1	2.63E+1
RWD	kg	2.38E-3	3.72E-4	2.68E-5	2.78E-3	6.05E-5	2.41E-5	2.62E-5	-5.20E-4	2.37E-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