

Environmental Profile

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

Ecochain v3.5.80



Product: 3009580 - KG Branch 87° DN125xDN100
Unit: 1 piece
Manufacturer: Wavin - PL -Buk - Extra products

LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified: Yes
Issue date: 08-06-2023
End of validity: 08-06-2028
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 -Buk - Extra products (2020). (☑ = 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	1.69E+0	2.12E-2	1.45E-4	1.71E+0	1.91E-2	6.78E-1	6.33E-3	-8.95E-1	1.52E+0
GWP-f	kg CO2 eq	1.68E+0	2.12E-2	1.46E-4	1.70E+0	1.91E-2	6.78E-1	6.33E-3	-8.89E-1	1.51E+0
GWP-b	kg CO2 eq	1.23E-2	1.29E-5	-1.54E-6	1.23E-2	1.16E-5	-5.20E-4	7.80E-6	-5.54E-3	6.28E-3
GWP-luluc	kg CO2 eq	1.40E-3	7.50E-6	1.49E-7	1.41E-3	6.77E-6	2.32E-4	1.61E-7	-5.13E-4	1.14E-3
ODP	kg CFC11 eq	7.94E-7	4.88E-9	8.26E-12	7.99E-7	4.41E-9	6.34E-8	2.29E-10	-3.99E-7	4.68E-7
AP	mol H+ eq	7.89E-3	1.21E-4	1.47E-6	8.01E-3	1.09E-4	1.09E-3	5.58E-6	-3.10E-3	6.12E-3
EP-fw	kg P eq	7.32E-5	1.74E-7	8.24E-9	7.34E-5	1.57E-7	7.75E-6	7.31E-9	-2.91E-5	5.22E-5
EP-m	kg N eq	1.33E-3	4.32E-5	1.55E-7	1.38E-3	3.90E-5	2.67E-4	3.65E-6	-5.45E-4	1.14E-3
EP-T	mol N eq	1.47E-2	4.76E-4	1.85E-6	1.51E-2	4.30E-4	2.94E-3	2.23E-5	-5.81E-3	1.27E-2
POCP	kg NMVOC eq	5.07E-3	1.36E-4	6.28E-7	5.21E-3	1.23E-4	8.79E-4	7.70E-6	-2.04E-3	4.18E-3
ADP-mm	kg Sb eq	1.41E-3	5.48E-7	1.97E-8	1.41E-3	4.95E-7	4.24E-6	5.59E-9	-1.68E-5	1.40E-3
ADP-f	MJ	4.25E+1	3.25E-1	1.36E-3	4.28E+1	2.94E-1	2.94E+0	1.68E-2	-2.13E+1	2.47E+1
WDP	m3 depriv.	2.51E+0	9.98E-4	5.22E-5	2.51E+0	9.01E-4	1.17E-1	1.07E-4	-1.14E+0	1.49E+0
PM	disease inc.	5.34E-8	1.91E-9	9.08E-12	5.53E-8	1.73E-9	1.34E-8	1.15E-10	-1.97E-8	5.08E-8
IR	kBq U-235 eq	8.85E-2	1.42E-3	1.02E-6	9.00E-2	1.28E-3	1.03E-2	7.72E-5	-3.71E-2	6.45E-2
ETP-fw	CTUe	4.02E+1	2.64E-1	1.21E-2	4.05E+1	2.38E-1	2.27E+1	2.51E-1	-1.10E+1	5.27E+1
HTP-c	CTUh	1.35E-9	9.40E-12	6.17E-13	1.36E-9	8.48E-12	3.38E-10	4.61E-13	-4.22E-10	1.28E-9
HTP-nc	CTUh	4.30E-8	3.15E-10	1.57E-11	4.34E-8	2.84E-10	7.99E-9	4.86E-11	-1.44E-8	3.72E-8
SQP	Pt	6.04E+0	2.78E-1	2.24E-3	6.32E+0	2.51E-1	1.81E+0	4.29E-2	-2.06E+0	6.36E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.24E+0	4.67E-3	2.40E-2	6.27E+0	4.21E-3	2.13E-1	6.30E-4	-8.31E-1	5.66E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.24E+0	4.67E-3	2.40E-2	6.27E+0	4.21E-3	2.13E-1	6.30E-4	-8.31E-1	5.66E+0
PENRE	MJ	4.55E+1	3.45E-1	1.44E-3	4.59E+1	3.12E-1	3.13E+0	1.78E-2	-2.30E+1	2.63E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.55E+1	3.45E-1	1.44E-3	4.59E+1	3.12E-1	3.13E+0	1.78E-2	-2.30E+1	2.63E+1
PET	MJ	5.18E+1	3.50E-1	2.55E-2	5.22E+1	3.16E-1	3.34E+0	1.84E-2	-2.39E+1	3.20E+1
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	2.95E-2	3.68E-5	1.46E-6	2.96E-2	3.32E-5	3.26E-3	2.05E-5	-1.21E-2	2.08E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.01E-4	8.32E-7	2.73E-13	2.02E-4	7.51E-7	4.80E-6	2.04E-8	-1.75E-5	1.90E-4
NHWD	kg	1.58E-1	2.02E-2	1.05E-6	1.78E-1	1.82E-2	1.12E-1	7.37E-2	-6.10E-2	3.21E-1
RWD	kg	7.89E-5	2.21E-6	1.10E-13	8.12E-5	2.00E-6	1.10E-5	1.09E-7	-3.30E-5	6.13E-5
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