

Environmental Profile

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

Ecochain v3.5.80



Product: 3072497 - KG Bend 87° DN250 FIN
 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

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
 A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
 B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
 C4 Disposal

Benefits and loads beyond the system boundaries

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	5.48E+0	3.78E-1	1.45E-4	5.86E+0	9.22E-2	5.13E+0	2.87E-2	-4.01E+0	7.10E+0
GWP-f	kg CO2 eq	1.01E+1	3.78E-1	1.46E-4	1.04E+1	9.21E-2	2.74E+0	2.86E-2	-4.63E+0	8.69E+0
GWP-b	kg CO2 eq	-4.64E+0	2.29E-4	-1.54E-6	-4.63E+0	5.59E-5	2.38E+0	3.73E-5	6.29E-1	-1.62E+0
GWP-luluc	kg CO2 eq	4.40E-2	1.34E-4	1.49E-7	4.41E-2	3.26E-5	1.21E-3	7.24E-7	-8.12E-3	3.72E-2
ODP	kg CFC11 eq	4.35E-6	8.70E-8	8.26E-12	4.43E-6	2.12E-8	3.42E-7	1.09E-9	-2.07E-6	2.73E-6
AP	mol H+ eq	4.98E-2	2.15E-3	1.47E-6	5.20E-2	5.25E-4	5.84E-3	2.63E-5	-1.99E-2	3.85E-2
EP-fw	kg P eq	4.57E-4	3.11E-6	8.24E-9	4.60E-4	7.58E-7	4.07E-5	3.33E-8	-2.15E-4	2.86E-4
EP-m	kg N eq	9.85E-3	7.70E-4	1.55E-7	1.06E-2	1.88E-4	1.46E-3	1.67E-5	-3.81E-3	8.47E-3
EP-T	mol N eq	1.07E-1	8.48E-3	1.85E-6	1.16E-1	2.07E-3	1.60E-2	1.05E-4	-4.18E-2	9.23E-2
POCP	kg NMVOC eq	3.54E-2	2.42E-3	6.28E-7	3.78E-2	5.92E-4	4.78E-3	3.61E-5	-1.38E-2	2.95E-2
ADP-mm	kg Sb eq	7.50E-3	9.77E-6	1.97E-8	7.51E-3	2.38E-6	2.30E-5	2.60E-8	-8.98E-5	7.45E-3
ADP-f	MJ	2.31E+2	5.80E+0	1.36E-3	2.37E+2	1.41E+0	1.55E+1	7.93E-2	-1.08E+2	1.46E+2
WDP	m3 depriv.	1.57E+1	1.78E-2	5.22E-5	1.57E+1	4.34E-3	6.10E-1	3.63E-4	-6.70E+0	9.59E+0
PM	disease inc.	4.67E-7	3.41E-8	9.08E-12	5.01E-7	8.32E-9	7.20E-8	5.46E-10	-1.94E-7	3.88E-7
IR	kBq U-235 eq	5.52E-1	2.53E-2	1.02E-6	5.78E-1	6.18E-3	5.55E-2	3.67E-4	-2.37E-1	4.02E-1
ETP-fw	CTUe	3.15E+2	4.71E+0	1.21E-2	3.19E+2	1.15E+0	1.21E+2	1.33E+0	-1.12E+2	3.30E+2
HTP-c	CTUh	1.09E-8	1.68E-10	6.17E-13	1.10E-8	4.09E-11	1.66E-9	2.09E-12	-3.22E-9	9.52E-9
HTP-nc	CTUh	2.63E-7	5.61E-9	1.57E-11	2.68E-7	1.37E-9	4.16E-8	2.53E-10	-9.15E-8	2.20E-7
SQP	Pt	4.59E+2	4.96E+0	2.24E-3	4.64E+2	1.21E+0	9.38E+0	2.04E-1	-2.75E+2	2.00E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.12E+1	8.32E-2	2.40E-2	9.13E+1	2.03E-2	1.11E+0	3.05E-3	-4.75E+1	4.50E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.12E+1	8.32E-2	2.40E-2	9.13E+1	2.03E-2	1.11E+0	3.05E-3	-4.75E+1	4.50E+1
PENRE	MJ	2.48E+2	6.15E+0	1.44E-3	2.54E+2	1.50E+0	1.65E+1	8.42E-2	-1.16E+2	1.56E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.48E+2	6.15E+0	1.44E-3	2.54E+2	1.50E+0	1.65E+1	8.42E-2	-1.16E+2	1.56E+2
PET	MJ	3.39E+2	6.24E+0	2.55E-2	3.45E+2	1.52E+0	1.76E+1	8.72E-2	-1.63E+2	2.01E+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	2.26E-1	6.56E-4	1.46E-6	2.27E-1	1.60E-4	1.68E-2	9.79E-5	-8.63E-2	1.57E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.12E-3	1.48E-5	2.73E-13	1.14E-3	3.62E-6	2.57E-5	9.53E-8	-1.00E-4	1.07E-3
NHWD	kg	1.40E+0	3.59E-1	1.05E-6	1.76E+0	8.77E-2	5.64E-1	3.50E-1	-4.36E-1	2.33E+0
RWD	kg	5.29E-4	3.94E-5	1.10E-13	5.68E-4	9.62E-6	6.00E-5	5.18E-7	-2.16E-4	4.22E-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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