

Environmental Profile

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

Ecochain v3.5.80



Product: 3072501 - KG Bend 87° DN300 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	1.09E+1	1.85E-1	1.45E-4	1.11E+1	1.61E-1	9.60E+0	5.02E-2	-7.03E+0	1.38E+1
GWP-f	kg CO2 eq	1.49E+1	1.85E-1	1.46E-4	1.51E+1	1.61E-1	4.86E+0	5.02E-2	-8.28E+0	1.18E+1
GWP-b	kg CO2 eq	-4.01E+0	1.12E-4	-1.54E-6	-4.01E+0	9.80E-5	4.73E+0	6.53E-5	1.26E+0	1.99E+0
GWP-luluc	kg CO2 eq	1.94E-2	6.55E-5	1.49E-7	1.95E-2	5.71E-5	2.12E-3	1.27E-6	-1.56E-2	6.05E-3
ODP	kg CFC11 eq	7.46E-6	4.26E-8	8.26E-12	7.51E-6	3.72E-8	6.01E-7	1.91E-9	-3.65E-6	4.50E-6
AP	mol H+ eq	6.75E-2	1.05E-3	1.47E-6	6.86E-2	9.19E-4	1.03E-2	4.61E-5	-3.60E-2	4.38E-2
EP-fw	kg P eq	6.69E-4	1.52E-6	8.24E-9	6.70E-4	1.33E-6	7.14E-5	5.84E-8	-3.94E-4	3.49E-4
EP-m	kg N eq	1.30E-2	3.77E-4	1.55E-7	1.33E-2	3.29E-4	2.59E-3	2.93E-5	-6.97E-3	9.32E-3
EP-T	mol N eq	1.37E-1	4.16E-3	1.85E-6	1.41E-1	3.62E-3	2.85E-2	1.84E-4	-7.66E-2	9.68E-2
POCP	kg NMVOC eq	4.53E-2	1.19E-3	6.28E-7	4.65E-2	1.04E-3	8.51E-3	6.33E-5	-2.51E-2	3.10E-2
ADP-mm	kg Sb eq	3.80E-4	4.79E-6	1.97E-8	3.85E-4	4.17E-6	4.07E-5	4.55E-8	-1.59E-4	2.70E-4
ADP-f	MJ	3.60E+2	2.84E+0	1.36E-3	3.63E+2	2.48E+0	2.73E+1	1.39E-1	-1.91E+2	2.01E+2
WDP	m3 depriv.	2.21E+1	8.72E-3	5.22E-5	2.21E+1	7.60E-3	1.07E+0	6.35E-4	-1.20E+1	1.11E+1
PM	disease inc.	5.63E-7	1.67E-8	9.08E-12	5.80E-7	1.46E-8	1.28E-7	9.57E-10	-3.64E-7	3.59E-7
IR	kBq U-235 eq	7.85E-1	1.24E-2	1.02E-6	7.97E-1	1.08E-2	9.82E-2	6.43E-4	-4.29E-1	4.78E-1
ETP-fw	CTUe	3.90E+2	2.31E+0	1.21E-2	3.92E+2	2.01E+0	2.12E+2	2.33E+0	-2.11E+2	3.97E+2
HTP-c	CTUh	1.06E-8	8.21E-11	6.17E-13	1.06E-8	7.16E-11	2.94E-9	3.66E-12	-5.91E-9	7.75E-9
HTP-nc	CTUh	3.07E-7	2.75E-9	1.57E-11	3.10E-7	2.40E-9	7.32E-8	4.42E-10	-1.65E-7	2.21E-7
SQP	Pt	4.42E+2	2.43E+0	2.24E-3	4.44E+2	2.12E+0	1.66E+1	3.57E-1	-5.45E+2	-8.18E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.71E+1	4.07E-2	2.40E-2	7.72E+1	3.55E-2	1.96E+0	5.33E-3	-9.37E+1	-1.45E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.71E+1	4.07E-2	2.40E-2	7.72E+1	3.55E-2	1.96E+0	5.33E-3	-9.37E+1	-1.45E+1
PENRE	MJ	3.86E+2	3.02E+0	1.44E-3	3.89E+2	2.63E+0	2.91E+1	1.47E-1	-2.06E+2	2.15E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.86E+2	3.02E+0	1.44E-3	3.89E+2	2.63E+0	2.91E+1	1.47E-1	-2.06E+2	2.15E+2
PET	MJ	4.64E+2	3.06E+0	2.55E-2	4.67E+2	2.67E+0	3.10E+1	1.53E-1	-3.00E+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	2.48E-1	3.21E-4	1.46E-6	2.48E-1	2.80E-4	2.95E-2	1.72E-4	-1.58E-1	1.21E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.18E-4	7.26E-6	2.73E-13	3.25E-4	6.33E-6	4.55E-5	1.67E-7	-1.81E-4	1.96E-4
NHWD	kg	1.67E+0	1.76E-1	1.05E-6	1.84E+0	1.54E-1	9.98E-1	6.14E-1	-7.96E-1	2.81E+0
RWD	kg	7.13E-4	1.93E-5	1.10E-13	7.32E-4	1.68E-5	1.06E-4	9.08E-7	-3.92E-4	4.64E-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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