

Environmental Profile

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

Ecochain v3.5.80



Product: 3072500 - KG Bend 45° 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	6.85E+0	5.18E-1	1.45E-4	7.37E+0	1.27E-1	6.94E+0	3.94E-2	-5.50E+0	8.98E+0
GWP-f	kg CO2 eq	1.35E+1	5.17E-1	1.46E-4	1.40E+1	1.27E-1	3.76E+0	3.93E-2	-6.33E+0	1.16E+1
GWP-b	kg CO2 eq	-6.69E+0	3.14E-4	-1.54E-6	-6.69E+0	7.69E-5	3.18E+0	5.12E-5	8.39E-1	-2.67E+0
GWP-luluc	kg CO2 eq	6.01E-2	1.83E-4	1.49E-7	6.03E-2	4.48E-5	1.66E-3	9.94E-7	-1.09E-2	5.11E-2
ODP	kg CFC11 eq	5.73E-6	1.19E-7	8.26E-12	5.85E-6	2.92E-8	4.69E-7	1.49E-9	-2.84E-6	3.51E-6
AP	mol H+ eq	6.69E-2	2.95E-3	1.47E-6	6.98E-2	7.21E-4	8.01E-3	3.61E-5	-2.71E-2	5.15E-2
EP-fw	kg P eq	6.11E-4	4.26E-6	8.24E-9	6.15E-4	1.04E-6	5.58E-5	4.58E-8	-2.93E-4	3.79E-4
EP-m	kg N eq	1.33E-2	1.05E-3	1.55E-7	1.43E-2	2.58E-4	1.99E-3	2.30E-5	-5.18E-3	1.14E-2
EP-T	mol N eq	1.45E-1	1.16E-2	1.85E-6	1.56E-1	2.84E-3	2.20E-2	1.45E-4	-5.68E-2	1.25E-1
POCP	kg NMVOC eq	4.79E-2	3.32E-3	6.28E-7	5.12E-2	8.13E-4	6.55E-3	4.96E-5	-1.87E-2	3.99E-2
ADP-mm	kg Sb eq	9.85E-3	1.34E-5	1.97E-8	9.87E-3	3.27E-6	3.15E-5	3.57E-8	-1.23E-4	9.78E-3
ADP-f	MJ	3.08E+2	7.94E+0	1.36E-3	3.16E+2	1.94E+0	2.13E+1	1.09E-1	-1.47E+2	1.92E+2
WDP	m3 depriv.	2.08E+1	2.44E-2	5.22E-5	2.08E+1	5.96E-3	8.37E-1	4.98E-4	-9.17E+0	1.25E+1
PM	disease inc.	6.38E-7	4.67E-8	9.08E-12	6.84E-7	1.14E-8	9.87E-8	7.50E-10	-2.62E-7	5.33E-7
IR	kBq U-235 eq	7.39E-1	3.47E-2	1.02E-6	7.74E-1	8.49E-3	7.62E-2	5.05E-4	-3.24E-1	5.35E-1
ETP-fw	CTUe	4.21E+2	6.45E+0	1.21E-2	4.27E+2	1.58E+0	1.66E+2	1.83E+0	-1.52E+2	4.44E+2
HTP-c	CTUh	1.49E-8	2.30E-10	6.17E-13	1.52E-8	5.61E-11	2.28E-9	2.87E-12	-4.38E-9	1.31E-8
HTP-nc	CTUh	3.52E-7	7.69E-9	1.57E-11	3.60E-7	1.88E-9	5.71E-8	3.47E-10	-1.25E-7	2.94E-7
SQP	Pt	6.55E+2	6.80E+0	2.24E-3	6.61E+2	1.66E+0	1.29E+1	2.80E-1	-3.67E+2	3.09E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.28E+2	1.14E-1	2.40E-2	1.29E+2	2.79E-2	1.53E+0	4.18E-3	-6.36E+1	6.66E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.28E+2	1.14E-1	2.40E-2	1.29E+2	2.79E-2	1.53E+0	4.18E-3	-6.36E+1	6.66E+1
PENRE	MJ	3.30E+2	8.43E+0	1.44E-3	3.38E+2	2.06E+0	2.26E+1	1.16E-1	-1.58E+2	2.05E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.30E+2	8.43E+0	1.44E-3	3.38E+2	2.06E+0	2.26E+1	1.16E-1	-1.58E+2	2.05E+2
PET	MJ	4.58E+2	8.55E+0	2.55E-2	4.67E+2	2.09E+0	2.41E+1	1.20E-1	-2.22E+2	2.71E+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	3.03E-1	8.99E-4	1.46E-6	3.04E-1	2.20E-4	2.30E-2	1.35E-4	-1.17E-1	2.10E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.48E-3	2.03E-5	2.73E-13	1.50E-3	4.97E-6	3.52E-5	1.31E-7	-1.37E-4	1.40E-3
NHWD	kg	1.91E+0	4.92E-1	1.05E-6	2.40E+0	1.20E-1	7.73E-1	4.81E-1	-5.94E-1	3.18E+0
RWD	kg	7.12E-4	5.40E-5	1.10E-13	7.66E-4	1.32E-5	8.22E-5	7.12E-7	-2.95E-4	5.67E-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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