

Environmental Profile

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

Ecochain v3.5.80



Product: 3072498 - KG Bend 15° 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	4.93E+0	4.11E-1	1.45E-4	5.34E+0	9.82E-2	6.16E+0	3.05E-2	-4.29E+0	7.34E+0
GWP-f	kg CO2 eq	1.16E+1	4.11E-1	1.46E-4	1.20E+1	9.81E-2	2.98E+0	3.05E-2	-5.13E+0	9.97E+0
GWP-b	kg CO2 eq	-6.69E+0	2.49E-4	-1.54E-6	-6.69E+0	5.96E-5	3.18E+0	3.97E-5	8.47E-1	-2.67E+0
GWP-luluc	kg CO2 eq	4.91E-2	1.45E-4	1.49E-7	4.92E-2	3.47E-5	1.29E-3	7.71E-7	-1.02E-2	4.04E-2
ODP	kg CFC11 eq	4.75E-6	9.47E-8	8.26E-12	4.84E-6	2.26E-8	3.67E-7	1.16E-9	-2.23E-6	3.00E-6
AP	mol H+ eq	5.77E-2	2.34E-3	1.47E-6	6.01E-2	5.59E-4	6.34E-3	2.80E-5	-2.25E-2	4.45E-2
EP-fw	kg P eq	5.26E-4	3.38E-6	8.24E-9	5.30E-4	8.07E-7	4.36E-5	3.55E-8	-2.48E-4	3.26E-4
EP-m	kg N eq	1.17E-2	8.37E-4	1.55E-7	1.25E-2	2.00E-4	1.59E-3	1.78E-5	-4.39E-3	9.92E-3
EP-T	mol N eq	1.27E-1	9.23E-3	1.85E-6	1.36E-1	2.20E-3	1.76E-2	1.12E-4	-4.84E-2	1.08E-1
POCP	kg NMVOC eq	4.21E-2	2.64E-3	6.28E-7	4.48E-2	6.30E-4	5.24E-3	3.85E-5	-1.58E-2	3.49E-2
ADP-mm	kg Sb eq	8.07E-3	1.06E-5	1.97E-8	8.08E-3	2.54E-6	2.50E-5	2.77E-8	-9.81E-5	8.01E-3
ADP-f	MJ	2.62E+2	6.31E+0	1.36E-3	2.68E+2	1.51E+0	1.67E+1	8.45E-2	-1.18E+2	1.69E+2
WDP	m3 depriv.	1.70E+1	1.94E-2	5.22E-5	1.70E+1	4.62E-3	6.51E-1	3.86E-4	-7.42E+0	1.03E+1
PM	disease inc.	5.73E-7	3.71E-8	9.08E-12	6.10E-7	8.86E-9	7.84E-8	5.82E-10	-2.33E-7	4.65E-7
IR	kBq U-235 eq	6.36E-1	2.76E-2	1.02E-6	6.64E-1	6.58E-3	6.01E-2	3.91E-4	-2.68E-1	4.63E-1
ETP-fw	CTUe	3.73E+2	5.12E+0	1.21E-2	3.78E+2	1.22E+0	1.29E+2	1.42E+0	-1.35E+2	3.75E+2
HTP-c	CTUh	1.33E-8	1.82E-10	6.17E-13	1.35E-8	4.35E-11	1.81E-9	2.22E-12	-3.74E-9	1.16E-8
HTP-nc	CTUh	3.00E-7	6.11E-9	1.57E-11	3.06E-7	1.46E-9	4.47E-8	2.69E-10	-1.03E-7	2.50E-7
SQP	Pt	6.45E+2	5.40E+0	2.24E-3	6.50E+2	1.29E+0	1.01E+1	2.17E-1	-3.64E+2	2.98E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.20E+2	9.05E-2	2.40E-2	1.20E+2	2.16E-2	1.19E+0	3.24E-3	-6.23E+1	5.94E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.20E+2	9.05E-2	2.40E-2	1.20E+2	2.16E-2	1.19E+0	3.24E-3	-6.23E+1	5.94E+1
PENRE	MJ	2.81E+2	6.70E+0	1.44E-3	2.87E+2	1.60E+0	1.78E+1	8.97E-2	-1.27E+2	1.80E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.81E+2	6.70E+0	1.44E-3	2.87E+2	1.60E+0	1.78E+1	8.97E-2	-1.27E+2	1.80E+2
PET	MJ	4.01E+2	6.79E+0	2.55E-2	4.08E+2	1.62E+0	1.90E+1	9.29E-2	-1.89E+2	2.40E+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	2.50E-1	7.14E-4	1.46E-6	2.51E-1	1.70E-4	1.80E-2	1.04E-4	-9.92E-2	1.70E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.22E-3	1.61E-5	2.73E-13	1.24E-3	3.85E-6	2.79E-5	1.02E-7	-1.13E-4	1.16E-3
NHWD	kg	1.69E+0	3.91E-1	1.05E-6	2.09E+0	9.34E-2	6.12E-1	3.73E-1	-5.01E-1	2.66E+0
RWD	kg	6.20E-4	4.29E-5	1.10E-13	6.63E-4	1.02E-5	6.52E-5	5.52E-7	-2.45E-4	4.94E-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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