

Environmental Profile

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

Ecochain v3.5.80



Product: 3072494 - KG Bend 15° 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	3.37E+0	2.12E-1	1.45E-4	3.58E+0	5.27E-2	2.73E+0	1.64E-2	-2.32E+0	4.06E+0
GWP-f	kg CO2 eq	5.80E+0	2.12E-1	1.46E-4	6.01E+0	5.26E-2	1.55E+0	1.64E-2	-2.56E+0	5.08E+0
GWP-b	kg CO2 eq	-2.45E+0	1.29E-4	-1.54E-6	-2.45E+0	3.20E-5	1.17E+0	2.13E-5	2.36E-1	-1.04E+0
GWP-luluc	kg CO2 eq	2.45E-2	7.51E-5	1.49E-7	2.46E-2	1.86E-5	6.87E-4	4.14E-7	-3.72E-3	2.16E-2
ODP	kg CFC11 eq	2.51E-6	4.89E-8	8.26E-12	2.56E-6	1.21E-8	1.93E-7	6.22E-10	-1.17E-6	1.60E-6
AP	mol H+ eq	2.88E-2	1.21E-3	1.47E-6	3.00E-2	3.00E-4	3.27E-3	1.50E-5	-1.07E-2	2.29E-2
EP-fw	kg P eq	2.58E-4	1.75E-6	8.24E-9	2.60E-4	4.33E-7	2.31E-5	1.91E-8	-1.12E-4	1.72E-4
EP-m	kg N eq	5.54E-3	4.33E-4	1.55E-7	5.97E-3	1.07E-4	8.07E-4	9.56E-6	-2.01E-3	4.88E-3
EP-T	mol N eq	6.07E-2	4.77E-3	1.85E-6	6.55E-2	1.18E-3	8.90E-3	6.02E-5	-2.19E-2	5.37E-2
POCP	kg NMVOC eq	2.05E-2	1.36E-3	6.28E-7	2.18E-2	3.38E-4	2.65E-3	2.06E-5	-7.34E-3	1.75E-2
ADP-mm	kg Sb eq	4.37E-3	5.49E-6	1.97E-8	4.37E-3	1.36E-6	1.29E-5	1.49E-8	-5.02E-5	4.34E-3
ADP-f	MJ	1.35E+2	3.26E+0	1.36E-3	1.39E+2	8.08E-1	8.73E+0	4.53E-2	-5.99E+1	8.82E+1
WDP	m3 depriv.	9.02E+0	1.00E-2	5.22E-5	9.03E+0	2.48E-3	3.47E-1	2.07E-4	-3.65E+0	5.73E+0
PM	disease inc.	2.67E-7	1.92E-8	9.08E-12	2.86E-7	4.75E-9	4.02E-8	3.12E-10	-9.67E-8	2.34E-7
IR	kBq U-235 eq	3.26E-1	1.42E-2	1.02E-6	3.40E-1	3.53E-3	3.12E-2	2.10E-4	-1.27E-1	2.48E-1
ETP-fw	CTUe	1.68E+2	2.65E+0	1.21E-2	1.70E+2	6.56E-1	6.89E+1	7.60E-1	-5.44E+1	1.86E+2
HTP-c	CTUh	6.12E-9	9.41E-11	6.17E-13	6.22E-9	2.34E-11	9.29E-10	1.19E-12	-1.72E-9	5.45E-9
HTP-nc	CTUh	1.50E-7	3.15E-9	1.57E-11	1.53E-7	7.82E-10	2.36E-8	1.44E-10	-4.94E-8	1.28E-7
SQP	Pt	2.41E+2	2.79E+0	2.24E-3	2.44E+2	6.91E-1	5.29E+0	1.17E-1	-1.26E+2	1.25E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.89E+1	4.67E-2	2.40E-2	4.89E+1	1.16E-2	6.32E-1	1.74E-3	-2.17E+1	2.78E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.89E+1	4.67E-2	2.40E-2	4.89E+1	1.16E-2	6.32E-1	1.74E-3	-2.17E+1	2.78E+1
PENRE	MJ	1.45E+2	3.46E+0	1.44E-3	1.48E+2	8.58E-1	9.29E+0	4.81E-2	-6.45E+1	9.41E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.45E+2	3.46E+0	1.44E-3	1.48E+2	8.58E-1	9.29E+0	4.81E-2	-6.45E+1	9.41E+1
PET	MJ	1.94E+2	3.50E+0	2.55E-2	1.97E+2	8.70E-1	9.92E+0	4.98E-2	-8.63E+1	1.22E+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	1.30E-1	3.69E-4	1.46E-6	1.31E-1	9.14E-5	9.54E-3	5.60E-5	-4.45E-2	9.60E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.41E-4	8.33E-6	2.73E-13	6.49E-4	2.07E-6	1.43E-5	5.45E-8	-5.50E-5	6.10E-4
NHWD	kg	7.87E-1	2.02E-1	1.05E-6	9.89E-1	5.01E-2	3.16E-1	2.00E-1	-2.34E-1	1.32E+0
RWD	kg	3.18E-4	2.22E-5	1.10E-13	3.40E-4	5.50E-6	3.35E-5	2.96E-7	-1.15E-4	2.64E-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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