

Environmental Profile

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

Ecochain v3.5.80



Product: 3072499 - KG Bend 30° 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	5.82E+0	4.75E-1	1.45E-4	6.29E+0	1.15E-1	6.63E+0	3.58E-2	-5.01E+0	8.06E+0
GWP-f	kg CO2 eq	1.24E+1	4.74E-1	1.46E-4	1.29E+1	1.15E-1	3.45E+0	3.58E-2	-5.84E+0	1.07E+1
GWP-b	kg CO2 eq	-6.67E+0	2.88E-4	-1.54E-6	-6.67E+0	6.99E-5	3.18E+0	4.66E-5	8.42E-1	-2.65E+0
GWP-luluc	kg CO2 eq	5.54E-2	1.68E-4	1.49E-7	5.56E-2	4.07E-5	1.51E-3	9.04E-7	-1.06E-2	4.65E-2
ODP	kg CFC11 eq	5.18E-6	1.09E-7	8.26E-12	5.29E-6	2.65E-8	4.28E-7	1.36E-9	-2.60E-6	3.15E-6
AP	mol H+ eq	6.19E-2	2.70E-3	1.47E-6	6.46E-2	6.56E-4	7.34E-3	3.29E-5	-2.53E-2	4.73E-2
EP-fw	kg P eq	5.64E-4	3.90E-6	8.24E-9	5.68E-4	9.47E-7	5.09E-5	4.17E-8	-2.75E-4	3.45E-4
EP-m	kg N eq	1.24E-2	9.67E-4	1.55E-7	1.34E-2	2.35E-4	1.83E-3	2.09E-5	-4.86E-3	1.06E-2
EP-T	mol N eq	1.35E-1	1.07E-2	1.85E-6	1.46E-1	2.58E-3	2.02E-2	1.32E-4	-5.34E-2	1.15E-1
POCP	kg NMVOC eq	4.48E-2	3.05E-3	6.28E-7	4.78E-2	7.39E-4	6.02E-3	4.51E-5	-1.75E-2	3.71E-2
ADP-mm	kg Sb eq	8.86E-3	1.23E-5	1.97E-8	8.87E-3	2.98E-6	2.89E-5	3.25E-8	-1.13E-4	8.79E-3
ADP-f	MJ	2.82E+2	7.28E+0	1.36E-3	2.90E+2	1.77E+0	1.94E+1	9.91E-2	-1.35E+2	1.75E+2
WDP	m3 depriv.	1.88E+1	2.24E-2	5.22E-5	1.88E+1	5.42E-3	7.62E-1	4.53E-4	-8.46E+0	1.11E+1
PM	disease inc.	6.03E-7	4.28E-8	9.08E-12	6.46E-7	1.04E-8	9.05E-8	6.82E-10	-2.51E-7	4.96E-7
IR	kBq U-235 eq	6.82E-1	3.18E-2	1.02E-6	7.14E-1	7.72E-3	6.97E-2	4.59E-4	-3.01E-1	4.90E-1
ETP-fw	CTUe	3.95E+2	5.91E+0	1.21E-2	4.00E+2	1.43E+0	1.51E+2	1.66E+0	-1.45E+2	4.09E+2
HTP-c	CTUh	1.40E-8	2.10E-10	6.17E-13	1.43E-8	5.10E-11	2.09E-9	2.61E-12	-4.12E-9	1.23E-8
HTP-nc	CTUh	3.24E-7	7.05E-9	1.57E-11	3.31E-7	1.71E-9	5.21E-8	3.15E-10	-1.16E-7	2.69E-7
SQP	Pt	6.48E+2	6.23E+0	2.24E-3	6.54E+2	1.51E+0	1.18E+1	2.55E-1	-3.66E+2	3.02E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.25E+2	1.04E-1	2.40E-2	1.25E+2	2.53E-2	1.39E+0	3.80E-3	-6.31E+1	6.31E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.25E+2	1.04E-1	2.40E-2	1.25E+2	2.53E-2	1.39E+0	3.80E-3	-6.31E+1	6.31E+1
PENRE	MJ	3.03E+2	7.73E+0	1.44E-3	3.10E+2	1.88E+0	2.07E+1	1.05E-1	-1.46E+2	1.87E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.03E+2	7.73E+0	1.44E-3	3.10E+2	1.88E+0	2.07E+1	1.05E-1	-1.46E+2	1.87E+2
PET	MJ	4.27E+2	7.84E+0	2.55E-2	4.35E+2	1.90E+0	2.21E+1	1.09E-1	-2.09E+2	2.50E+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	2.77E-1	8.24E-4	1.46E-6	2.77E-1	2.00E-4	2.10E-2	1.22E-4	-1.10E-1	1.89E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.34E-3	1.86E-5	2.73E-13	1.35E-3	4.52E-6	3.23E-5	1.19E-7	-1.27E-4	1.26E-3
NHWD	kg	1.79E+0	4.51E-1	1.05E-6	2.24E+0	1.09E-1	7.08E-1	4.38E-1	-5.56E-1	2.94E+0
RWD	kg	6.61E-4	4.95E-5	1.10E-13	7.11E-4	1.20E-5	7.53E-5	6.47E-7	-2.75E-4	5.24E-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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