

Environmental Profile

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

Ecochain v3.5.80



Product: 3072503 - KG Branch 45° DN300xDN150 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	7.68E+0	6.46E-1	1.45E-4	8.33E+0	1.55E-1	9.42E+0	4.82E-2	-6.76E+0	1.12E+1
GWP-f	kg CO2 eq	1.64E+1	6.45E-1	1.46E-4	1.71E+1	1.55E-1	4.69E+0	4.82E-2	-8.01E+0	1.39E+1
GWP-b	kg CO2 eq	-8.80E+0	3.92E-4	-1.54E-6	-8.80E+0	9.41E-5	4.73E+0	6.27E-5	1.27E+0	-2.80E+0
GWP-luluc	kg CO2 eq	7.49E-2	2.28E-4	1.49E-7	7.51E-2	5.49E-5	2.04E-3	1.22E-6	-1.54E-2	6.18E-2
ODP	kg CFC11 eq	6.80E-6	1.49E-7	8.26E-12	6.95E-6	3.57E-8	5.79E-7	1.83E-9	-3.51E-6	4.05E-6
AP	mol H+ eq	8.16E-2	3.68E-3	1.47E-6	8.53E-2	8.83E-4	9.97E-3	4.43E-5	-3.50E-2	6.11E-2
EP-fw	kg P eq	7.46E-4	5.31E-6	8.24E-9	7.52E-4	1.28E-6	6.87E-5	5.61E-8	-3.84E-4	4.37E-4
EP-m	kg N eq	1.65E-2	1.32E-3	1.55E-7	1.78E-2	3.16E-4	2.50E-3	2.82E-5	-6.79E-3	1.39E-2
EP-T	mol N eq	1.79E-1	1.45E-2	1.85E-6	1.94E-1	3.48E-3	2.76E-2	1.77E-4	-7.48E-2	1.50E-1
POCP	kg NMVOC eq	5.90E-2	4.14E-3	6.28E-7	6.31E-2	9.96E-4	8.21E-3	6.08E-5	-2.45E-2	4.79E-2
ADP-mm	kg Sb eq	1.16E-2	1.67E-5	1.97E-8	1.16E-2	4.01E-6	3.92E-5	4.37E-8	-1.54E-4	1.15E-2
ADP-f	MJ	3.71E+2	9.91E+0	1.36E-3	3.81E+2	2.38E+0	2.63E+1	1.34E-1	-1.85E+2	2.25E+2
WDP	m3 depriv.	2.48E+1	3.04E-2	5.22E-5	2.48E+1	7.30E-3	1.03E+0	6.10E-4	-1.16E+1	1.43E+1
PM	disease inc.	7.97E-7	5.83E-8	9.08E-12	8.56E-7	1.40E-8	1.23E-7	9.19E-10	-3.57E-7	6.37E-7
IR	kBq U-235 eq	8.93E-1	4.33E-2	1.02E-6	9.37E-1	1.04E-2	9.46E-2	6.18E-4	-4.17E-1	6.25E-1
ETP-fw	CTUe	5.36E+2	8.04E+0	1.21E-2	5.44E+2	1.93E+0	2.04E+2	2.24E+0	-2.07E+2	5.44E+2
HTP-c	CTUh	1.82E-8	2.86E-10	6.17E-13	1.85E-8	6.88E-11	2.84E-9	3.51E-12	-5.77E-9	1.57E-8
HTP-nc	CTUh	4.24E-7	9.59E-9	1.57E-11	4.33E-7	2.30E-9	7.05E-8	4.25E-10	-1.60E-7	3.46E-7
SQP	Pt	8.61E+2	8.48E+0	2.24E-3	8.69E+2	2.04E+0	1.59E+1	3.43E-1	-5.44E+2	3.43E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.66E+2	1.42E-1	2.40E-2	1.66E+2	3.41E-2	1.88E+0	5.12E-3	-9.34E+1	7.49E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.66E+2	1.42E-1	2.40E-2	1.66E+2	3.41E-2	1.88E+0	5.12E-3	-9.34E+1	7.49E+1
PENRE	MJ	3.98E+2	1.05E+1	1.44E-3	4.08E+2	2.53E+0	2.80E+1	1.42E-1	-1.99E+2	2.40E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.98E+2	1.05E+1	1.44E-3	4.08E+2	2.53E+0	2.80E+1	1.42E-1	-1.99E+2	2.40E+2
PET	MJ	5.64E+2	1.07E+1	2.55E-2	5.75E+2	2.56E+0	2.99E+1	1.47E-1	-2.92E+2	3.15E+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	3.67E-1	1.12E-3	1.46E-6	3.68E-1	2.69E-4	2.84E-2	1.65E-4	-1.54E-1	2.43E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.75E-3	2.53E-5	2.73E-13	1.78E-3	6.09E-6	4.39E-5	1.60E-7	-1.76E-4	1.65E-3
NHWD	kg	2.36E+0	6.14E-1	1.05E-6	2.97E+0	1.48E-1	9.62E-1	5.90E-1	-7.75E-1	3.90E+0
RWD	kg	8.64E-4	6.74E-5	1.10E-13	9.31E-4	1.62E-5	1.02E-4	8.72E-7	-3.81E-4	6.69E-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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