

Environmental Profile

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

Ecochain v3.5.80



Product: 3072504 - KG Plug 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	2.45E+0	3.95E-2	1.45E-4	2.49E+0	3.15E-2	1.24E+0	9.98E-3	-1.39E+0	2.38E+0
GWP-f	kg CO2 eq	2.69E+0	3.95E-2	1.46E-4	2.73E+0	3.14E-2	9.47E-1	9.98E-3	-1.44E+0	2.27E+0
GWP-b	kg CO2 eq	-2.39E-1	2.40E-5	-1.54E-6	-2.39E-1	1.91E-5	2.93E-1	1.26E-5	5.40E-2	1.08E-1
GWP-luluc	kg CO2 eq	2.75E-3	1.40E-5	1.49E-7	2.76E-3	1.11E-5	3.97E-4	2.62E-7	-1.44E-3	1.73E-3
ODP	kg CFC11 eq	1.37E-6	9.09E-9	8.26E-12	1.37E-6	7.24E-9	1.10E-7	3.72E-10	-6.89E-7	8.03E-7
AP	mol H+ eq	1.29E-2	2.25E-4	1.47E-6	1.31E-2	1.79E-4	1.86E-3	9.06E-6	-5.65E-3	9.51E-3
EP-fw	kg P eq	1.25E-4	3.25E-7	8.24E-9	1.25E-4	2.59E-7	1.33E-5	1.19E-8	-5.68E-5	8.18E-5
EP-m	kg N eq	2.26E-3	8.04E-5	1.55E-7	2.34E-3	6.41E-5	4.54E-4	5.61E-6	-1.02E-3	1.84E-3
EP-T	mol N eq	2.46E-2	8.86E-4	1.85E-6	2.55E-2	7.06E-4	5.01E-3	3.61E-5	-1.10E-2	2.03E-2
POCP	kg NMVOC eq	8.12E-3	2.53E-4	6.28E-7	8.37E-3	2.02E-4	1.50E-3	1.24E-5	-3.75E-3	6.34E-3
ADP-mm	kg Sb eq	2.48E-3	1.02E-6	1.97E-8	2.48E-3	8.13E-7	7.31E-6	9.08E-9	-2.85E-5	2.46E-3
ADP-f	MJ	6.56E+1	6.06E-1	1.36E-3	6.62E+1	4.82E-1	5.02E+0	2.72E-2	-3.44E+1	3.73E+1
WDP	m3 depriv.	4.17E+0	1.86E-3	5.22E-5	4.17E+0	1.48E-3	2.00E-1	1.78E-4	-2.04E+0	2.33E+0
PM	disease inc.	8.92E-8	3.56E-9	9.08E-12	9.28E-8	2.84E-9	2.29E-8	1.87E-10	-4.30E-8	7.57E-8
IR	kBq U-235 eq	1.46E-1	2.65E-3	1.02E-6	1.48E-1	2.11E-3	1.78E-2	1.25E-4	-6.83E-2	9.99E-2
ETP-fw	CTUe	7.54E+1	4.92E-1	1.21E-2	7.59E+1	3.92E-1	3.92E+1	4.33E-1	-2.45E+1	9.14E+1
HTP-c	CTUh	2.41E-9	1.75E-11	6.17E-13	2.42E-9	1.39E-11	5.66E-10	7.52E-13	-8.45E-10	2.16E-9
HTP-nc	CTUh	7.44E-8	5.86E-10	1.57E-11	7.50E-8	4.67E-10	1.36E-8	8.31E-11	-2.67E-8	6.24E-8
SQP	Pt	3.42E+1	5.18E-1	2.24E-3	3.47E+1	4.13E-1	3.07E+0	6.96E-2	-3.35E+1	4.77E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.46E+1	8.69E-3	2.40E-2	1.46E+1	6.92E-3	3.64E-1	1.01E-3	-6.27E+0	8.73E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.46E+1	8.69E-3	2.40E-2	1.46E+1	6.92E-3	3.64E-1	1.01E-3	-6.27E+0	8.73E+0
PENRE	MJ	7.03E+1	6.43E-1	1.44E-3	7.10E+1	5.12E-1	5.34E+0	2.89E-2	-3.71E+1	3.98E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	7.03E+1	6.43E-1	1.44E-3	7.10E+1	5.12E-1	5.34E+0	2.89E-2	-3.71E+1	3.98E+1
PET	MJ	8.49E+1	6.52E-1	2.55E-2	8.56E+1	5.19E-1	5.70E+0	2.99E-2	-4.33E+1	4.85E+1
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	4.77E-2	6.85E-5	1.46E-6	4.78E-2	5.46E-5	5.48E-3	3.33E-5	-2.29E-2	3.04E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.58E-4	1.55E-6	2.73E-13	3.60E-4	1.23E-6	8.18E-6	3.31E-8	-3.00E-5	3.39E-4
NHWD	kg	2.78E-1	3.75E-2	1.05E-6	3.15E-1	2.99E-2	1.84E-1	1.20E-1	-1.19E-1	5.30E-1
RWD	kg	1.28E-4	4.12E-6	1.10E-13	1.32E-4	3.28E-6	1.90E-5	1.77E-7	-6.11E-5	9.30E-5
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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