

Environmental Profile

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

Ecochain v3.5.71



Product: 3037389 - Twin wall D/S Coupler BK 225
 Unit: 1 piece
 Manufacturer: Wavin - UK - Chippenham - Verified

LCA standard: EN15804+A2 (2019)
 Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
 Externally verified: Yes
 Issue date: 09-02-2023
 End of validity: 09-02-2028
 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 - UK - Chippenham - Verified (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]

Statement of Confidentiality

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.34E+0	3.19E-2	2.23E-1	1.59E+0	1.98E-2	7.71E-1	9.34E-3	-9.46E-1	1.45E+0
GWP-f	kg CO2 eq	1.53E+0	3.18E-2	2.20E-1	1.78E+0	1.98E-2	5.76E-1	9.34E-3	-9.43E-1	1.44E+0
GWP-b	kg CO2 eq	-1.89E-1	1.93E-5	3.28E-3	-1.86E-1	1.20E-5	1.95E-1	8.14E-6	-3.22E-3	5.72E-3
GWP-luluc	kg CO2 eq	4.68E-4	1.13E-5	2.22E-4	7.01E-4	7.01E-6	1.12E-4	1.56E-7	-2.70E-4	5.49E-4
ODP	kg CFC11 eq	7.28E-8	7.33E-9	1.61E-8	9.63E-8	4.56E-9	1.47E-8	2.34E-10	-3.70E-8	7.87E-8
AP	mol H+ eq	5.63E-3	1.81E-4	1.27E-3	7.08E-3	1.13E-4	6.15E-4	5.57E-6	-2.75E-3	5.06E-3
EP-fw	kg P eq	2.21E-5	2.62E-7	3.17E-6	2.56E-5	1.63E-7	3.22E-6	7.21E-9	-1.13E-5	1.76E-5
EP-m	kg N eq	9.38E-4	6.49E-5	2.22E-4	1.22E-3	4.03E-5	1.80E-4	3.65E-6	-5.03E-4	9.45E-4
EP-T	mol N eq	1.05E-2	7.15E-4	2.48E-3	1.37E-2	4.45E-4	1.98E-3	2.26E-5	-5.60E-3	1.05E-2
POCP	kg NMVOC eq	4.83E-3	2.04E-4	9.71E-4	6.01E-3	1.27E-4	6.24E-4	8.50E-6	-2.53E-3	4.24E-3
ADP-mm	kg Sb eq	1.73E-5	8.23E-7	6.43E-6	2.45E-5	5.12E-7	2.43E-6	5.59E-9	-6.53E-6	2.09E-5
ADP-f	MJ	5.48E+1	4.89E-1	2.43E+0	5.77E+1	3.04E-1	1.94E+0	1.71E-2	-2.94E+1	3.06E+1
WDP	m3 depriv.	1.01E+0	1.50E-3	6.68E-2	1.08E+0	9.32E-4	3.79E-2	7.81E-5	-5.09E-1	6.13E-1
PM	disease inc.	5.83E-8	2.87E-9	8.92E-9	7.01E-8	1.79E-9	1.01E-8	1.17E-10	-2.51E-8	5.70E-8
IR	kBq U-235 eq	3.93E-2	2.14E-3	5.15E-3	4.66E-2	1.33E-3	5.88E-3	7.93E-5	-1.47E-2	3.92E-2
ETP-fw	CTUe	9.25E+0	3.97E-1	7.18E+0	1.68E+1	2.47E-1	2.19E+0	1.43E-2	-4.33E+0	1.50E+1
HTP-c	CTUh	4.03E-10	1.41E-11	2.82E-10	6.99E-10	8.78E-12	2.61E-10	4.11E-13	-2.23E-10	7.46E-10
HTP-nc	CTUh	9.87E-9	4.73E-10	1.14E-8	2.17E-8	2.94E-10	3.25E-9	9.16E-12	-4.92E-9	2.03E-8
SQP	Pt	1.83E+1	4.18E-1	9.14E-1	1.96E+1	2.60E-1	1.55E+0	4.38E-2	-1.45E+1	6.99E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.10E+0	7.01E-3	1.60E+1	1.91E+1	4.36E-3	9.56E-2	6.65E-4	-2.41E+0	1.68E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.10E+0	7.01E-3	1.60E+1	1.91E+1	4.36E-3	9.56E-2	6.65E-4	-2.41E+0	1.68E+1
PENRE	MJ	5.88E+1	5.19E-1	2.58E+0	6.19E+1	3.23E-1	2.07E+0	1.81E-2	-3.17E+1	3.26E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.88E+1	5.19E-1	2.58E+0	6.19E+1	3.23E-1	2.07E+0	1.81E-2	-3.17E+1	3.26E+1
PET	MJ	6.19E+1	5.26E-1	1.86E+1	8.10E+1	3.27E-1	2.17E+0	1.88E-2	-3.41E+1	4.94E+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	1.52E-2	5.53E-5	2.06E-3	1.73E-2	3.44E-5	1.12E-3	2.11E-5	-7.73E-3	1.08E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.59E-6	1.25E-6	1.38E-5	2.26E-5	7.77E-7	3.16E-6	2.05E-8	-7.73E-6	1.88E-5
NHWD	kg	6.09E-2	3.03E-2	2.98E-3	9.41E-2	1.88E-2	9.54E-2	7.53E-2	-2.99E-2	2.54E-1
RWD	kg	4.39E-5	3.32E-6	3.65E-6	5.09E-5	2.07E-6	7.46E-6	1.12E-7	-1.36E-5	4.70E-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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