Environmental Profile

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

Ecochain v3.5.80

Product:	3001673 - KG Adaptor to Clay Spigot DN100 EXP
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]

Statement of Confidentiality

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	9.19E-1	1.28E-2	1.45E-4	9.32E-1	1.18E-2	5.89E-1	3.90E-3	-5.32E-1	1.00E+0
GWP-f	kg CO2 eq	1.07E+0	1.27E-2	1.46E-4	1.09E+0	1.18E-2	4.03E-1	3.89E-3	-5.73E-1	9.33E-1
GWP-b	kg CO2 eq	-1.57E-1	7.74E-6	-1.54E-6	-1.57E-1	7.18E-6	1.86E-1	4.86E-6	4.14E-2	7.02E-2
GWP-luluc	kg CO2 eq	1.20E-3	4.51E-6	1.49E-7	1.20E-3	4.18E-6	1.47E-4	1.01E-7	-7.13E-4	6.43E-4
ODP	kg CFC11 eq	5.20E-7	2.94E-9	8.26E-12	5.23E-7	2.72E-9	4.09E-8	1.43E-10	-2.58E-7	3.08E-7
AP	mol H+ eq	5.19E-3	7.26E-5	1.47E-6	5.26E-3	6.73E-5	7.06E-4	3.48E-6	-2.26E-3	3.78E-3
EP-fw	kg P eq	4.92E-5	1.05E-7	8.24E-9	4.93E-5	9.73E-8	4.93E-6	4.56E-9	-2.33E-5	3.11E-5
EP-m	kg N eq	9.29E-4	2.60E-5	1.55E-7	9.55E-4	2.41E-5	1.75E-4	2.36E-6	-4.21E-4	7.36E-4
EP-T	mol N eq	1.01E-2	2.86E-4	1.85E-6	1.04E-2	2.66E-4	1.93E-3	1.39E-5	-4.57E-3	8.03E-3
POCP	kg NMVOC eq	3.38E-3	8.18E-5	6.28E-7	3.46E-3	7.59E-5	5.75E-4	4.79E-6	-1.54E-3	2.58E-3
ADP-mm	kg Sb eq	8.66E-4	3.30E-7	1.97E-8	8.66E-4	3.06E-7	2.75E-6	3.49E-9	-1.15E-5	8.58E-4
ADP-f	MJ	2.62E+1	1.96E-1	1.36E-3	2.64E+1	1.81E-1	1.88E+0	1.05E-2	-1.34E+1	1.51E+1
WDP	m3 depriv.	1.58E+0	6.00E-4	5.22E-5	1.58E+0	5.57E-4	7.44E-2	6.68E-5	-7.86E-1	8.68E-1
PM	disease inc.	3.96E-8	1.15E-9	9.08E-12	4.07E-8	1.07E-9	8.67E-9	7.19E-11	-1.92E-8	3.13E-8
IR	kBq U-235 eq	5.97E-2	8.55E-4	1.02E-6	6.05E-2	7.93E-4	6.67E-3	4.81E-5	-2.71E-2	4.09E-2
ETP-fw	CTUe	3.11E+1	1.59E-1	1.21E-2	3.13E+1	1.47E-1	1.46E+1	1.61E-1	-1.10E+1	3.52E+1
HTP-c	CTUh	9.31E-10	5.65E-12	6.17E-13	9.37E-10	5.24E-12	2.13E-10	2.88E-13	-3.50E-10	8.05E-10
HTP-nc	CTUh	2.79E-8	1.89E-10	1.57E-11	2.81E-8	1.76E-10	5.08E-9	3.10E-11	-1.05E-8	2.30E-8
SQP	Pt	1.94E+1	1.67E-1	2.24E-3	1.96E+1	1.55E-1	1.15E+0	2.68E-2	-2.10E+1	-8.02E-2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.08E+0	2.81E-3	2.40E-2	6.10E+0	2.60E-3	1.35E-1	3.94E-4	-3.73E+0	2.51E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.08E+0	2.81E-3	2.40E-2	6.10E+0	2.60E-3	1.35E-1	3.94E-4	-3.73E+0	2.51E+0
PENRE	MJ	2.80E+1	2.08E-1	1.44E-3	2.83E+1	1.93E-1	2.00E+0	1.11E-2	-1.44E+1	1.61E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.80E+1	2.08E-1	1.44E-3	2.83E+1	1.93E-1	2.00E+0	1.11E-2	-1.44E+1	1.61E+1
PET	MJ	3.41E+1	2.10E-1	2.55E-2	3.44E+1	1.95E-1	2.14E+0	1.15E-2	-1.81E+1	1.86E+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	1.87E-2	2.21E-5	1.46E-6	1.87E-2	2.05E-5	2.10E-3	1.28E-5	-9.36E-3	1.15E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.25E-4	5.00E-7	2.73E-13	1.26E-4	4.64E-7	3.12E-6	1.27E-8	-1.21E-5	1.17E-4
NHWD	kg	1.14E-1	1.21E-2	1.05E-6	1.26E-1	1.12E-2	7.03E-2	4.59E-2	-4.83E-2	2.05E-1
RWD	kg	5.50E-5	1.33E-6	1.10E-13	5.63E-5	1.23E-6	7.18E-6	6.80E-8	-2.46E-5	4.02E-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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