

Environmental Profile

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

Ecochain v3.5.80



Product: 3043756 - PP Drainage Connector BR 110x92
 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	2.31E-1	7.71E-4	1.45E-4	2.32E-1	3.68E-3	3.72E-1	1.73E-3	-2.18E-1	3.92E-1
GWP-f	kg CO2 eq	4.28E-1	7.70E-4	1.46E-4	4.29E-1	3.68E-3	1.58E-1	1.74E-3	-2.47E-1	3.46E-1
GWP-b	kg CO2 eq	-1.98E-1	4.68E-7	-1.54E-6	-1.98E-1	2.24E-6	2.14E-1	1.51E-6	2.99E-2	4.63E-2
GWP-luluc	kg CO2 eq	5.03E-4	2.73E-7	1.49E-7	5.03E-4	1.30E-6	2.27E-5	2.99E-8	-3.67E-4	1.60E-4
ODP	kg CFC11 eq	1.77E-8	1.78E-10	8.26E-12	1.79E-8	8.48E-10	3.59E-9	4.35E-11	-1.66E-8	5.79E-9
AP	mol H+ eq	1.76E-3	4.39E-6	1.47E-6	1.76E-3	2.10E-5	1.49E-4	1.04E-6	-8.55E-4	1.08E-3
EP-fw	kg P eq	1.09E-5	6.34E-9	8.24E-9	1.09E-5	3.03E-8	6.72E-7	1.37E-9	-6.33E-6	5.31E-6
EP-m	kg N eq	3.50E-4	1.57E-6	1.55E-7	3.52E-4	7.50E-6	4.64E-5	6.73E-7	-1.80E-4	2.26E-4
EP-T	mol N eq	3.81E-3	1.73E-5	1.85E-6	3.83E-3	8.27E-5	5.11E-4	4.22E-6	-2.05E-3	2.38E-3
POCP	kg NMVOC eq	1.52E-3	4.95E-6	6.28E-7	1.53E-3	2.36E-5	1.58E-4	1.58E-6	-7.87E-4	9.23E-4
ADP-mm	kg Sb eq	6.32E-6	1.99E-8	1.97E-8	6.36E-6	9.52E-8	5.69E-7	1.05E-9	-1.88E-6	5.14E-6
ADP-f	MJ	1.28E+1	1.18E-2	1.36E-3	1.28E+1	5.65E-2	4.21E-1	3.18E-3	-6.66E+0	6.64E+0
WDP	m3 depriv.	2.67E-1	3.63E-5	5.22E-5	2.67E-1	1.73E-4	7.57E-3	1.73E-5	-1.55E-1	1.19E-1
PM	disease inc.	1.91E-8	6.95E-11	9.08E-12	1.92E-8	3.32E-10	2.34E-9	2.19E-11	-1.11E-8	1.08E-8
IR	kBq U-235 eq	1.03E-2	5.17E-5	1.02E-6	1.04E-2	2.47E-4	1.35E-3	1.47E-5	-6.12E-3	5.86E-3
ETP-fw	CTUe	8.13E+0	9.60E-3	1.21E-2	8.15E+0	4.59E-2	5.11E-1	2.66E-3	-4.21E+0	4.50E+0
HTP-c	CTUh	2.59E-10	3.42E-13	6.17E-13	2.60E-10	1.63E-12	6.40E-11	7.86E-14	-1.23E-10	2.03E-10
HTP-nc	CTUh	4.61E-9	1.14E-11	1.57E-11	4.63E-9	5.47E-11	7.46E-10	1.72E-12	-1.62E-9	3.82E-9
SQP	Pt	1.86E+1	1.01E-2	2.24E-3	1.86E+1	4.83E-2	3.30E-1	8.16E-3	-2.01E+1	-1.13E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.56E+0	1.70E-4	2.40E-2	3.58E+0	8.11E-4	1.98E-2	1.22E-4	-3.26E+0	3.42E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.56E+0	1.70E-4	2.40E-2	3.58E+0	8.11E-4	1.98E-2	1.22E-4	-3.26E+0	3.42E-1
PENRE	MJ	1.37E+1	1.26E-2	1.44E-3	1.38E+1	6.00E-2	4.49E-1	3.37E-3	-7.18E+0	7.08E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.37E+1	1.26E-2	1.44E-3	1.38E+1	6.00E-2	4.49E-1	3.37E-3	-7.18E+0	7.08E+0
PET	MJ	1.73E+1	1.27E-2	2.55E-2	1.73E+1	6.08E-2	4.68E-1	3.50E-3	-1.04E+1	7.43E+0
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	4.89E-3	1.34E-6	1.46E-6	4.89E-3	6.39E-6	2.39E-4	3.91E-6	-2.98E-3	2.16E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.17E-6	3.02E-8	2.73E-13	4.20E-6	1.45E-7	7.50E-7	3.84E-9	-3.71E-6	1.39E-6
NHWD	kg	3.42E-2	7.33E-4	1.05E-6	3.49E-2	3.50E-3	2.26E-2	1.40E-2	-1.55E-2	5.95E-2
RWD	kg	9.88E-6	8.04E-8	1.10E-13	9.96E-6	3.84E-7	1.76E-6	2.07E-8	-6.08E-6	6.05E-6
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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