

Environmental Profile

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

Ecochain v3.5.80



Product: 3043791 - PP Drainage Coupler BR 92
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					Use stage							End-of-Life stage				
A1 Raw material supply A2 Transport A3 Manufacturing					B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment B6 Operational energy use B7 Operational water use							C1 De-construction demolition C2 Transport C3 Waste processing C4 Disposal				
Construction process stage												Benefits and loads beyond the system boundaries				
A4 Transport gate to site A5 Assembly / Construction installation process												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	1.88E-1	6.05E-4	1.45E-4	1.88E-1	3.21E-3	2.74E-1	1.51E-3	-1.72E-1	2.96E-1
GWP-f	kg CO2 eq	3.35E-1	6.05E-4	1.46E-4	3.36E-1	3.21E-3	1.13E-1	1.51E-3	-1.95E-1	2.58E-1
GWP-b	kg CO2 eq	-1.48E-1	3.67E-7	-1.54E-6	-1.48E-1	1.95E-6	1.62E-1	1.32E-6	2.36E-2	3.74E-2
GWP-luluc	kg CO2 eq	3.85E-4	2.14E-7	1.49E-7	3.86E-4	1.14E-6	1.94E-5	2.59E-8	-2.90E-4	1.17E-4
ODP	kg CFC11 eq	1.35E-8	1.39E-10	8.26E-12	1.36E-8	7.39E-10	3.00E-9	3.79E-11	-1.19E-8	5.46E-9
AP	mol H+ eq	1.35E-3	3.44E-6	1.47E-6	1.36E-3	1.83E-5	1.23E-4	9.05E-7	-6.98E-4	8.02E-4
EP-fw	kg P eq	8.15E-6	4.98E-9	8.24E-9	8.17E-6	2.64E-8	5.73E-7	1.18E-9	-5.09E-6	3.68E-6
EP-m	kg N eq	2.68E-4	1.23E-6	1.55E-7	2.70E-4	6.54E-6	3.79E-5	5.88E-7	-1.44E-4	1.70E-4
EP-T	mol N eq	2.92E-3	1.36E-5	1.85E-6	2.93E-3	7.20E-5	4.17E-4	3.67E-6	-1.64E-3	1.78E-3
POCP	kg NMVOC eq	1.17E-3	3.88E-6	6.28E-7	1.17E-3	2.06E-5	1.29E-4	1.38E-6	-6.37E-4	6.84E-4
ADP-mm	kg Sb eq	4.96E-6	1.56E-8	1.97E-8	5.00E-6	8.30E-8	4.81E-7	9.14E-10	-1.54E-6	4.02E-6
ADP-f	MJ	1.03E+1	9.28E-3	1.36E-3	1.03E+1	4.92E-2	3.58E-1	2.77E-3	-5.45E+0	5.23E+0
WDP	m3 depriv.	2.08E-1	2.85E-5	5.22E-5	2.08E-1	1.51E-4	6.48E-3	1.44E-5	-1.29E-1	8.57E-2
PM	disease inc.	1.47E-8	5.46E-11	9.08E-12	1.48E-8	2.90E-10	1.97E-9	1.90E-11	-8.91E-9	8.15E-9
IR	kBq U-235 eq	7.82E-3	4.06E-5	1.02E-6	7.86E-3	2.15E-4	1.14E-3	1.28E-5	-4.91E-3	4.32E-3
ETP-fw	CTUe	6.23E+0	7.54E-3	1.21E-2	6.25E+0	4.00E-2	4.29E-1	2.32E-3	-3.35E+0	3.37E+0
HTP-c	CTUh	2.01E-10	2.68E-13	6.17E-13	2.02E-10	1.42E-12	5.15E-11	6.80E-14	-9.53E-11	1.60E-10
HTP-nc	CTUh	3.59E-9	8.98E-12	1.57E-11	3.62E-9	4.77E-11	6.14E-10	1.49E-12	-1.29E-9	2.99E-9
SQP	Pt	1.40E+1	7.94E-3	2.24E-3	1.40E+1	4.21E-2	2.80E-1	7.10E-3	-1.54E+1	-1.08E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.76E+0	1.33E-4	2.40E-2	2.78E+0	7.06E-4	1.69E-2	1.07E-4	-2.51E+0	2.92E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.76E+0	1.33E-4	2.40E-2	2.78E+0	7.06E-4	1.69E-2	1.07E-4	-2.51E+0	2.92E-1
PENRE	MJ	1.10E+1	9.85E-3	1.44E-3	1.10E+1	5.23E-2	3.81E-1	2.94E-3	-5.87E+0	5.58E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.10E+1	9.85E-3	1.44E-3	1.10E+1	5.23E-2	3.81E-1	2.94E-3	-5.87E+0	5.58E+0
PET	MJ	1.38E+1	9.99E-3	2.55E-2	1.38E+1	5.30E-2	3.98E-1	3.05E-3	-8.38E+0	5.88E+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	3.66E-3	1.05E-6	1.46E-6	3.66E-3	5.57E-6	2.01E-4	3.41E-6	-2.45E-3	1.42E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.21E-6	2.37E-8	2.73E-13	3.23E-6	1.26E-7	6.27E-7	3.34E-9	-2.73E-6	1.26E-6
NHWD	kg	2.55E-2	5.75E-4	1.05E-6	2.61E-2	3.05E-3	1.82E-2	1.22E-2	-1.22E-2	4.73E-2
RWD	kg	7.54E-6	6.31E-8	1.10E-13	7.60E-6	3.35E-7	1.48E-6	1.81E-8	-4.83E-6	4.60E-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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