

Environmental Profile

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

Ecochain v3.5.71



Product: 3066572 - PVC-U U Drain Branch 45° 110 x 110 D/S
 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	1.22E+0	5.24E-2	1.12E-1	1.38E+0	1.62E-2	4.48E-1	5.10E-3	-6.79E-1	1.17E+0
GWP-f	kg CO2 eq	1.21E+0	5.24E-2	1.09E-1	1.37E+0	1.62E-2	4.48E-1	5.10E-3	-6.74E-1	1.17E+0
GWP-b	kg CO2 eq	1.05E-2	-1.12E-5	3.04E-3	1.35E-2	9.85E-6	-3.80E-4	6.41E-6	-4.73E-3	8.40E-3
GWP-luluc	kg CO2 eq	1.01E-3	3.45E-5	8.85E-5	1.13E-3	5.74E-6	2.00E-4	1.35E-7	-4.40E-4	8.97E-4
ODP	kg CFC11 eq	6.73E-7	1.07E-8	1.02E-8	6.94E-7	3.74E-9	5.46E-8	1.91E-10	-3.41E-7	4.11E-7
AP	mol H+ eq	5.62E-3	1.57E-3	5.80E-4	7.76E-3	9.24E-5	9.19E-4	4.66E-6	-2.57E-3	6.21E-3
EP-fw	kg P eq	5.52E-5	2.36E-7	1.50E-6	5.69E-5	1.34E-7	6.67E-6	6.10E-9	-2.50E-5	3.87E-5
EP-m	kg N eq	9.46E-4	3.88E-4	1.18E-4	1.45E-3	3.31E-5	2.21E-4	2.89E-6	-4.43E-4	1.27E-3
EP-T	mol N eq	1.03E-2	4.31E-3	1.27E-3	1.59E-2	3.65E-4	2.44E-3	1.86E-5	-4.71E-3	1.40E-2
POCP	kg NMVOC eq	3.50E-3	1.12E-3	5.73E-4	5.19E-3	1.04E-4	7.31E-4	6.38E-6	-1.64E-3	4.40E-3
ADP-mm	kg Sb eq	7.09E-4	4.84E-7	2.55E-6	7.12E-4	4.20E-7	3.63E-6	4.68E-9	-1.40E-5	7.02E-4
ADP-f	MJ	3.09E+1	6.82E-1	1.20E+0	3.27E+1	2.49E-1	2.51E+0	1.40E-2	-1.64E+1	1.91E+1
WDP	m3 depriv.	2.03E+0	1.12E-3	3.74E-2	2.07E+0	7.65E-4	1.01E-1	9.53E-5	-9.79E-1	1.19E+0
PM	disease inc.	3.66E-8	1.91E-9	3.93E-9	4.25E-8	1.46E-9	1.13E-8	9.62E-11	-1.63E-8	3.91E-8
IR	kBq U-235 eq	6.73E-2	2.93E-3	3.08E-3	7.33E-2	1.09E-3	8.83E-3	6.41E-5	-3.16E-2	5.17E-2
ETP-fw	CTUe	2.62E+1	4.53E-1	3.05E+0	2.97E+1	2.02E-1	1.96E+1	2.17E-1	-9.43E+0	4.03E+1
HTP-c	CTUh	9.40E-10	2.90E-11	1.20E-10	1.09E-9	7.20E-12	2.80E-10	3.87E-13	-3.59E-10	1.02E-9
HTP-nc	CTUh	3.02E-8	3.87E-10	7.00E-9	3.76E-8	2.41E-10	6.78E-9	4.18E-11	-1.24E-8	3.22E-8
SQP	Pt	3.98E+0	1.49E-1	4.02E-1	4.54E+0	2.13E-1	1.54E+0	3.57E-2	-1.75E+0	4.58E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.52E+0	5.20E-3	6.23E+0	7.75E+0	3.57E-3	1.83E-1	5.16E-4	-7.11E-1	7.23E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.52E+0	5.20E-3	6.23E+0	7.75E+0	3.57E-3	1.83E-1	5.16E-4	-7.11E-1	7.23E+0
PENRE	MJ	3.31E+1	7.25E-1	1.28E+0	3.51E+1	2.64E-1	2.67E+0	1.48E-2	-1.77E+1	2.04E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.31E+1	7.25E-1	1.28E+0	3.51E+1	2.64E-1	2.67E+0	1.48E-2	-1.77E+1	2.04E+1
PET	MJ	3.46E+1	7.30E-1	7.50E+0	4.29E+1	2.68E-1	2.86E+0	1.53E-2	-1.84E+1	2.76E+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	2.22E-2	4.03E-5	1.07E-3	2.33E-2	2.82E-5	2.75E-3	1.71E-5	-1.02E-2	1.59E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.10E-4	7.53E-7	1.19E-5	1.22E-4	6.37E-7	4.05E-6	1.70E-8	-1.36E-5	1.13E-4
NHWD	kg	1.19E-1	6.29E-3	2.42E-3	1.27E-1	1.54E-2	9.09E-2	6.19E-2	-5.21E-2	2.44E-1
RWD	kg	5.88E-5	4.73E-6	3.15E-6	6.67E-5	1.69E-6	9.39E-6	9.09E-8	-2.78E-5	5.00E-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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