

Environmental Profile

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

Ecochain v3.5.71



Product: 3066794 - PVC-U U Drain LR Bend 87.5° 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					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]

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	1.60E+0	6.88E-2	1.57E-1	1.83E+0	2.32E-2	6.39E-1	7.58E-3	-9.82E-1	1.51E+0
GWP-f	kg CO2 eq	1.58E+0	6.87E-2	1.53E-1	1.81E+0	2.32E-2	6.40E-1	7.58E-3	-9.75E-1	1.50E+0
GWP-b	kg CO2 eq	1.39E-2	-1.47E-5	4.27E-3	1.82E-2	1.41E-5	-6.60E-4	9.18E-6	-6.55E-3	1.10E-2
GWP-luluc	kg CO2 eq	1.32E-3	4.53E-5	1.24E-4	1.49E-3	8.22E-6	2.73E-4	1.93E-7	-5.95E-4	1.18E-3
ODP	kg CFC11 eq	8.82E-7	1.40E-8	1.43E-8	9.10E-7	5.35E-9	7.32E-8	2.73E-10	-4.52E-7	5.37E-7
AP	mol H+ eq	7.36E-3	2.06E-3	8.13E-4	1.02E-2	1.32E-4	1.27E-3	6.64E-6	-3.63E-3	8.01E-3
EP-fw	kg P eq	7.24E-5	3.09E-7	2.11E-6	7.48E-5	1.91E-7	9.08E-6	8.70E-9	-3.39E-5	5.02E-5
EP-m	kg N eq	1.24E-3	5.10E-4	1.65E-4	1.91E-3	4.73E-5	3.08E-4	4.10E-6	-6.27E-4	1.65E-3
EP-T	mol N eq	1.35E-2	5.66E-3	1.79E-3	2.10E-2	5.21E-4	3.39E-3	2.65E-5	-6.69E-3	1.82E-2
POCP	kg NMVOC eq	4.58E-3	1.47E-3	8.04E-4	6.86E-3	1.49E-4	1.02E-3	9.18E-6	-2.38E-3	5.65E-3
ADP-mm	kg Sb eq	9.33E-4	6.35E-7	3.58E-6	9.37E-4	6.00E-7	5.00E-6	6.67E-9	-1.89E-5	9.24E-4
ADP-f	MJ	4.04E+1	8.96E-1	1.69E+0	4.30E+1	3.56E-1	3.49E+0	2.00E-2	-2.44E+1	2.25E+1
WDP	m3 depriv.	2.67E+0	1.47E-3	5.24E-2	2.72E+0	1.09E-3	1.36E-1	1.33E-4	-1.34E+0	1.52E+0
PM	disease inc.	4.77E-8	2.51E-9	5.51E-9	5.57E-8	2.10E-9	1.59E-8	1.37E-10	-2.35E-8	5.04E-8
IR	kBq U-235 eq	8.77E-2	3.85E-3	4.32E-3	9.59E-2	1.56E-3	1.22E-2	9.16E-5	-4.28E-2	6.69E-2
ETP-fw	CTUe	3.44E+1	5.94E-1	4.28E+0	3.92E+1	2.89E-1	2.60E+1	2.87E-1	-1.27E+1	5.30E+1
HTP-c	CTUh	1.24E-9	3.81E-11	1.68E-10	1.44E-9	1.03E-11	3.94E-10	5.47E-13	-4.87E-10	1.36E-9
HTP-nc	CTUh	3.97E-8	5.07E-10	9.82E-9	5.00E-8	3.45E-10	9.23E-9	5.58E-11	-1.68E-8	4.28E-8
SQP	Pt	5.21E+0	1.95E-1	5.64E-1	5.97E+0	3.05E-1	2.18E+0	5.10E-2	-2.37E+0	6.14E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.99E+0	6.82E-3	8.73E+0	1.07E+1	5.11E-3	2.50E-1	7.39E-4	-9.70E-1	1.00E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.99E+0	6.82E-3	8.73E+0	1.07E+1	5.11E-3	2.50E-1	7.39E-4	-9.70E-1	1.00E+1
PENRE	MJ	4.34E+1	9.51E-1	1.79E+0	4.61E+1	3.78E-1	3.71E+0	2.12E-2	-2.63E+1	2.39E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.34E+1	9.51E-1	1.79E+0	4.61E+1	3.78E-1	3.71E+0	2.12E-2	-2.63E+1	2.39E+1
PET	MJ	4.53E+1	9.58E-1	1.05E+1	5.68E+1	3.83E-1	3.96E+0	2.19E-2	-2.73E+1	3.39E+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	2.91E-2	5.29E-5	1.51E-3	3.07E-2	4.03E-5	3.71E-3	2.44E-5	-1.42E-2	2.03E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.45E-4	9.87E-7	1.67E-5	1.62E-4	9.11E-7	5.63E-6	2.43E-8	-1.85E-5	1.50E-4
NHWD	kg	1.56E-1	8.20E-3	3.39E-3	1.68E-1	2.21E-2	1.29E-1	8.83E-2	-7.07E-2	3.36E-1
RWD	kg	7.62E-5	6.22E-6	4.42E-6	8.68E-5	2.42E-6	1.31E-5	1.30E-7	-3.77E-5	6.47E-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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