

# Environmental Profile

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

Ecochain v3.5.71



Product: 3066569 - PVC-U U Drain Gully Riser  
 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

This document and supporting material contain confidential and proprietary business information of Wavin - UK - Chippenham - Verified. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - UK - Chippenham - Verified.

# Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	6.67E-1	2.88E-2	6.04E-2	7.56E-1	8.93E-3	2.42E-1	2.79E-3	-3.72E-1	6.38E-1
GWP-f	kg CO2 eq	6.61E-1	2.88E-2	5.87E-2	7.48E-1	8.92E-3	2.43E-1	2.79E-3	-3.69E-1	6.33E-1
GWP-b	kg CO2 eq	5.89E-3	-6.13E-6	1.64E-3	7.52E-3	5.42E-6	-2.44E-4	3.51E-6	-2.61E-3	4.68E-3
GWP-luluc	kg CO2 eq	5.53E-4	1.89E-5	4.77E-5	6.20E-4	3.16E-6	1.10E-4	7.45E-8	-2.42E-4	4.91E-4
ODP	kg CFC11 eq	3.68E-7	5.86E-9	5.50E-9	3.80E-7	2.06E-9	3.00E-8	1.05E-10	-1.88E-7	2.24E-7
AP	mol H+ eq	3.07E-3	8.60E-4	3.12E-4	4.25E-3	5.08E-5	5.05E-4	2.55E-6	-1.41E-3	3.39E-3
EP-fw	kg P eq	3.02E-5	1.30E-7	8.08E-7	3.12E-5	7.34E-8	3.67E-6	3.35E-9	-1.38E-5	2.11E-5
EP-m	kg N eq	5.18E-4	2.13E-4	6.33E-5	7.94E-4	1.82E-5	1.22E-4	1.57E-6	-2.44E-4	6.92E-4
EP-T	mol N eq	5.65E-3	2.37E-3	6.85E-4	8.70E-3	2.00E-4	1.34E-3	1.02E-5	-2.59E-3	7.66E-3
POCP	kg NMVOC eq	1.91E-3	6.15E-4	3.09E-4	2.83E-3	5.73E-5	4.01E-4	3.50E-6	-8.99E-4	2.40E-3
ADP-mm	kg Sb eq	4.03E-4	2.66E-7	1.37E-6	4.04E-4	2.31E-7	2.00E-6	2.57E-9	-7.64E-6	3.99E-4
ADP-f	MJ	1.68E+1	3.75E-1	6.49E-1	1.79E+1	1.37E-1	1.38E+0	7.67E-3	-9.00E+0	1.04E+1
WDP	m3 depriv.	1.12E+0	6.17E-4	2.01E-2	1.14E+0	4.20E-4	5.52E-2	5.31E-5	-5.39E-1	6.52E-1
PM	disease inc.	1.99E-8	1.05E-9	2.11E-9	2.31E-8	8.05E-10	6.24E-9	5.27E-11	-8.94E-9	2.12E-8
IR	kBq U-235 eq	3.67E-2	1.61E-3	1.66E-3	3.99E-2	5.99E-4	4.85E-3	3.51E-5	-1.74E-2	2.80E-2
ETP-fw	CTUe	1.45E+1	2.49E-1	1.64E+0	1.63E+1	1.11E-1	1.08E+1	1.19E-1	-5.18E+0	2.22E+1
HTP-c	CTUh	5.19E-10	1.60E-11	6.45E-11	5.99E-10	3.96E-12	1.55E-10	2.13E-13	-1.97E-10	5.61E-10
HTP-nc	CTUh	1.66E-8	2.13E-10	3.77E-9	2.06E-8	1.33E-10	3.73E-9	2.29E-11	-6.84E-9	1.77E-8
SQP	Pt	2.17E+0	8.21E-2	2.16E-1	2.46E+0	1.17E-1	8.50E-1	1.96E-2	-9.59E-1	2.49E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	8.32E-1	2.86E-3	3.35E+0	4.19E+0	1.97E-3	1.01E-1	2.82E-4	-3.91E-1	3.90E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	8.32E-1	2.86E-3	3.35E+0	4.19E+0	1.97E-3	1.01E-1	2.82E-4	-3.91E-1	3.90E+0
PENRE	MJ	1.81E+1	3.98E-1	6.89E-1	1.92E+1	1.45E-1	1.47E+0	8.13E-3	-9.70E+0	1.11E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.81E+1	3.98E-1	6.89E-1	1.92E+1	1.45E-1	1.47E+0	8.13E-3	-9.70E+0	1.11E+1
PET	MJ	1.89E+1	4.01E-1	4.04E+0	2.33E+1	1.47E-1	1.57E+0	8.42E-3	-1.01E+1	1.50E+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	1.22E-2	2.22E-5	5.78E-4	1.28E-2	1.55E-5	1.51E-3	9.37E-6	-5.62E-3	8.67E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.20E-5	4.14E-7	6.40E-6	6.89E-5	3.50E-7	2.23E-6	9.36E-9	-7.46E-6	6.40E-5
NHWD	kg	6.50E-2	3.47E-3	1.30E-3	6.97E-2	8.49E-3	5.00E-2	3.39E-2	-2.87E-2	1.33E-1
RWD	kg	3.18E-5	2.60E-6	1.70E-6	3.61E-5	9.32E-7	5.17E-6	4.98E-8	-1.53E-5	2.70E-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



Ecochain Technologies BV  
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands  
<https://www.ecochain.com>  
+31 20 3035 777