

# Environmental Profile

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

Ecochain v3.5.71



Product: 3066567 - PVC-U U Drain Gully Grids 160 x 160  
 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	2.27E-1	9.80E-3	2.12E-2	2.58E-1	3.06E-3	8.26E-2	9.53E-4	-1.26E-1	2.18E-1
GWP-f	kg CO2 eq	2.25E-1	9.79E-3	2.06E-2	2.55E-1	3.05E-3	8.26E-2	9.52E-4	-1.26E-1	2.16E-1
GWP-b	kg CO2 eq	2.01E-3	-2.05E-6	5.76E-4	2.59E-3	1.85E-6	-7.45E-5	1.19E-6	-8.67E-4	1.65E-3
GWP-luluc	kg CO2 eq	1.88E-4	6.43E-6	1.68E-5	2.11E-4	1.08E-6	3.74E-5	2.56E-8	-8.25E-5	1.67E-4
ODP	kg CFC11 eq	1.26E-7	2.00E-9	1.93E-9	1.30E-7	7.04E-10	1.02E-8	3.59E-11	-6.39E-8	7.68E-8
AP	mol H+ eq	1.05E-3	2.91E-4	1.10E-4	1.45E-3	1.74E-5	1.72E-4	8.73E-7	-4.80E-4	1.16E-3
EP-fw	kg P eq	1.03E-5	4.43E-8	2.84E-7	1.06E-5	2.51E-8	1.25E-6	1.15E-9	-4.69E-6	7.18E-6
EP-m	kg N eq	1.77E-4	7.22E-5	2.23E-5	2.71E-4	6.22E-6	4.14E-5	5.33E-7	-8.29E-5	2.36E-4
EP-T	mol N eq	1.92E-3	8.03E-4	2.41E-4	2.97E-3	6.86E-5	4.57E-4	3.48E-6	-8.81E-4	2.61E-3
POCP	kg NMVOC eq	6.52E-4	2.09E-4	1.08E-4	9.70E-4	1.96E-5	1.37E-4	1.19E-6	-3.06E-4	8.21E-4
ADP-mm	kg Sb eq	1.50E-4	9.15E-8	4.82E-7	1.51E-4	7.90E-8	6.80E-7	8.78E-10	-2.60E-6	1.49E-4
ADP-f	MJ	5.78E+0	1.28E-1	2.28E-1	6.14E+0	4.69E-2	4.71E-1	2.62E-3	-3.06E+0	3.60E+0
WDP	m3 depriv.	3.77E-1	2.11E-4	7.07E-3	3.84E-1	1.44E-4	1.88E-2	1.86E-5	-1.83E-1	2.20E-1
PM	disease inc.	6.95E-9	3.61E-10	7.43E-10	8.05E-9	2.76E-10	2.13E-9	1.80E-11	-3.04E-9	7.43E-9
IR	kBq U-235 eq	1.28E-2	5.49E-4	5.83E-4	1.39E-2	2.05E-4	1.65E-3	1.20E-5	-5.91E-3	9.84E-3
ETP-fw	CTUe	5.02E+0	8.49E-2	5.78E-1	5.69E+0	3.81E-2	3.65E+0	4.04E-2	-1.77E+0	7.65E+0
HTP-c	CTUh	1.78E-10	5.43E-12	2.27E-11	2.07E-10	1.35E-12	5.31E-11	7.29E-14	-6.72E-11	1.94E-10
HTP-nc	CTUh	5.70E-9	7.28E-11	1.33E-9	7.10E-9	4.54E-11	1.27E-9	7.78E-12	-2.33E-9	6.09E-9
SQP	Pt	7.41E-1	2.85E-2	7.61E-2	8.46E-1	4.01E-2	2.90E-1	6.68E-3	-3.30E-1	8.53E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.82E-1	9.79E-4	1.18E+0	1.46E+0	6.72E-4	3.42E-2	9.59E-5	-1.34E-1	1.36E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.82E-1	9.79E-4	1.18E+0	1.46E+0	6.72E-4	3.42E-2	9.59E-5	-1.34E-1	1.36E+0
PENRE	MJ	6.20E+0	1.36E-1	2.42E-1	6.58E+0	4.98E-2	5.01E-1	2.78E-3	-3.30E+0	3.84E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.20E+0	1.36E-1	2.42E-1	6.58E+0	4.98E-2	5.01E-1	2.78E-3	-3.30E+0	3.84E+0
PET	MJ	6.49E+0	1.37E-1	1.42E+0	8.04E+0	5.04E-2	5.36E-1	2.87E-3	-3.43E+0	5.20E+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	4.11E-3	7.60E-6	2.03E-4	4.32E-3	5.30E-6	5.12E-4	3.20E-6	-1.91E-3	2.92E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.28E-5	1.42E-7	2.25E-6	2.52E-5	1.20E-7	7.60E-7	3.20E-9	-2.54E-6	2.35E-5
NHWD	kg	2.19E-2	1.22E-3	4.58E-4	2.36E-2	2.91E-3	1.71E-2	1.16E-2	-9.76E-3	4.54E-2
RWD	kg	1.13E-5	8.86E-7	5.96E-7	1.28E-5	3.19E-7	1.76E-6	1.70E-8	-5.21E-6	9.69E-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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