Environmental Profile

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

Ecochain v3.5.64

Product:	2015755 - Gravity Infiltration Pipe BL 110 L=2
Unit:	1 piece
Manufacturer:	Wavin - SE - Eskilstuna

LCA standard:	EN15804+A2 (2019)
Standard database:	Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified:	Yes
Issue date:	20-06-2022
End of validity:	20-06-2027
Verifier:	Harry van Ewijk - 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 - SE - Eskilstuna (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 Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF 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

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.28E+0	1.86E-1	7.78E-2	2.54E+0	2.90E-2	9.42E-1	1.60E-2	-1.46E+0	2.07E+0
GWP-f	kg CO2 eq	2.27E+0	1.86E-1	5.64E-2	2.51E+0	2.90E-2	9.43E-1	1.60E-2	-1.46E+0	2.04E+0
GWP-b	kg CO2 eq	1.19E-2	-1.23E-5	1.48E-2	2.67E-2	1.76E-5	-1.18E-3	1.20E-5	-5.35E-3	2.02E-2
GWP-luluc	kg CO2 eq	7.52E-4	1.10E-4	6.56E-3	7.42E-3	1.03E-5	1.63E-4	2.35E-7	-3.19E-4	7.28E-3
ODP	kg CFC11 eq	6.41E-8	3.85E-8	6.39E-9	1.09E-7	6.68E-9	2.14E-8	3.43E-10	-6.92E-8	6.81E-8
AP	mol H+ eq	8.42E-3	4.51E-3	4.78E-4	1.34E-2	1.65E-4	8.98E-4	8.20E-6	-4.06E-3	1.04E-2
EP-fw	kg P eq	4.14E-5	1.11E-6	1.04E-6	4.35E-5	2.38E-7	4.73E-6	1.08E-8	-1.84E-5	3.01E-5
EP-m	kg N eq	1.43E-3	1.14E-3	1.42E-4	2.71E-3	5.91E-5	2.61E-4	5.74E-6	-7.41E-4	2.30E-3
EP-T	mol N eq	1.62E-2	1.27E-2	1.55E-3	3.05E-2	6.51E-4	2.87E-3	3.32E-5	-8.24E-3	2.58E-2
POCP	kg NMVOC eq	7.60E-3	3.32E-3	4.32E-4	1.14E-2	1.86E-4	9.08E-4	1.30E-5	-3.87E-3	8.59E-3
ADP-mm	kg Sb eq	3.25E-5	2.41E-6	1.70E-6	3.66E-5	7.50E-7	3.56E-6	8.27E-9	-9.36E-6	3.15E-5
ADP-f	MJ	7.79E+1	2.51E+0	5.61E-1	8.09E+1	4.45E-1	2.84E+0	2.50E-2	-4.35E+1	4.08E+1
WDP	m3 depriv.	1.79E+0	5.50E-3	3.61E-1	2.15E+0	1.37E-3	5.55E-2	1.31E-4	-8.45E-1	1.37E+0
PM	disease inc.	7.12E-8	9.11E-9	8.06E-9	8.84E-8	2.62E-9	1.48E-8	1.72E-10	-3.25E-8	7.35E-8
IR	kBq U-235 eq	5.52E-2	1.07E-2	1.67E-3	6.75E-2	1.94E-3	8.57E-3	1.16E-4	-2.59E-2	5.23E-2
ETP-fw	CTUe	1.51E+1	1.83E+0	1.56E+0	1.85E+1	3.61E-1	3.23E+0	2.21E-2	-6.72E+0	1.54E+1
HTP-c	CTUh	9.08E-10	9.78E-11	6.17E-11	1.07E-9	1.29E-11	3.90E-10	6.20E-13	-3.00E-10	1.17E-9
HTP-nc	CTUh	1.78E-8	1.69E-9	1.68E-9	2.12E-8	4.31E-10	4.87E-9	1.41E-11	-4.21E-9	2.23E-8
SQP	Pt	3.26E+0	9.75E-1	7.37E-2	4.31E+0	3.81E-1	2.27E+0	6.42E-2	-1.39E+0	5.64E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.39E+0	2.19E-2	3.54E+0	4.95E+0	6.38E-3	1.40E-1	9.82E-4	-6.24E-1	4.47E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.39E+0	2.19E-2	3.54E+0	4.95E+0	6.38E-3	1.40E-1	9.82E-4	-6.24E-1	4.47E+0
PENRE	MJ	8.36E+1	2.66E+0	5.95E-1	8.68E+1	4.72E-1	3.02E+0	2.66E-2	-4.69E+1	4.34E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.36E+1	2.66E+0	5.95E-1	8.68E+1	4.72E-1	3.02E+0	2.66E-2	-4.69E+1	4.34E+1
PET	MJ	8.50E+1	2.68E+0	4.13E+0	9.18E+1	4.79E-1	3.16E+0	2.76E-2	-4.75E+1	4.79E+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	2.76E-2	1.91E-4	8.58E-3	3.64E-2	5.03E-5	1.63E-3	3.09E-5	-1.29E-2	2.52E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.35E-5	3.70E-6	8.54E-7	1.81E-5	1.14E-6	4.64E-6	3.02E-8	-1.42E-5	9.70E-6
NHWD	kg	1.01E-1	5.89E-2	2.62E-3	1.63E-1	2.76E-2	1.40E-1	1.10E-1	-3.66E-2	4.04E-1
RWD	kg	4.95E-5	1.71E-5	2.37E-6	6.90E-5	3.03E-6	1.09E-5	1.64E-7	-2.42E-5	5.89E-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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