

Environmental Profile

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

Ecochain v3.5.64



Product: 3062838 - X-Stream PP Drain Pipe BK 200 L=6 S/PL
Unit: 1 Piece
Manufacturer: Wavin - SE - Eskilstuna

Wavin X-Stream is a new generation of double-walled pipes and fittings made of polypropylene. The system is suitable for pressureless transport of rainwater and wastewater.

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					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 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

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.35E+1	2.45E+0	8.69E-1	2.68E+1	3.33E-1	1.21E+1	1.57E-1	-1.55E+1	2.39E+1
GWP-f	kg CO2 eq	2.57E+1	2.45E+0	6.30E-1	2.88E+1	3.33E-1	9.67E+0	1.57E-1	-1.54E+1	2.36E+1
GWP-b	kg CO2 eq	-2.29E+0	1.11E-3	1.66E-1	-2.12E+0	2.02E-4	2.39E+0	1.37E-4	-5.41E-2	2.20E-1
GWP-luluc	kg CO2 eq	1.26E-2	9.04E-4	7.32E-2	8.67E-2	1.18E-4	1.87E-3	2.66E-6	-2.99E-3	8.57E-2
ODP	kg CFC11 eq	5.00E-7	5.40E-7	7.14E-8	1.11E-6	7.67E-8	2.43E-7	3.94E-9	-5.69E-7	8.66E-7
AP	mol H+ eq	9.24E-2	1.49E-2	5.34E-3	1.13E-1	1.90E-3	1.02E-2	9.38E-5	-4.34E-2	8.15E-2
EP-fw	kg P eq	3.84E-4	2.46E-5	1.16E-5	4.20E-4	2.74E-6	5.39E-5	1.22E-7	-1.70E-4	3.07E-4
EP-m	kg N eq	1.56E-2	5.16E-3	1.58E-3	2.24E-2	6.78E-4	2.97E-3	6.11E-5	-7.66E-3	1.84E-2
EP-T	mol N eq	1.76E-1	5.70E-2	1.74E-2	2.50E-1	7.48E-3	3.26E-2	3.81E-4	-8.47E-2	2.06E-1
POCP	kg NMVOC eq	8.10E-2	1.62E-2	4.82E-3	1.02E-1	2.14E-3	1.03E-2	1.43E-4	-3.91E-2	7.55E-2
ADP-mm	kg Sb eq	3.47E-4	6.16E-5	1.90E-5	4.28E-4	8.61E-6	4.05E-5	9.45E-8	-1.02E-4	3.75E-4
ADP-f	MJ	9.12E+2	3.69E+1	6.26E+0	9.55E+2	5.11E+0	3.24E+1	2.87E-1	-4.87E+2	5.06E+2
WDP	m3 depriv.	1.83E+1	1.31E-1	4.03E+0	2.25E+1	1.57E-2	6.36E-1	1.43E-3	-8.44E+0	1.47E+1
PM	disease inc.	8.38E-7	2.18E-7	9.00E-8	1.15E-6	3.00E-8	1.68E-7	1.97E-9	-3.63E-7	9.84E-7
IR	kBq U-235 eq	4.77E-1	1.55E-1	1.86E-2	6.50E-1	2.23E-2	9.76E-2	1.33E-3	-2.26E-1	5.46E-1
ETP-fw	CTUe	1.41E+2	3.28E+1	1.75E+1	1.91E+2	4.15E+0	3.66E+1	2.40E-1	-6.01E+1	1.72E+2
HTP-c	CTUh	6.76E-9	1.07E-9	6.89E-10	8.53E-9	1.48E-10	4.40E-9	7.01E-12	-2.57E-9	1.05E-8
HTP-nc	CTUh	1.69E-7	3.58E-8	1.88E-8	2.24E-7	4.95E-9	5.44E-8	1.55E-10	-7.29E-8	2.11E-7
SQP	Pt	2.32E+2	3.18E+1	8.23E-1	2.65E+2	4.37E+0	2.59E+1	7.37E-1	-1.31E+1	2.83E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.48E+1	4.60E-1	3.95E+1	8.47E+1	7.33E-2	1.60E+0	1.11E-2	-6.05E+0	8.04E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.48E+1	4.60E-1	3.95E+1	8.47E+1	7.33E-2	1.60E+0	1.11E-2	-6.05E+0	8.04E+1
PENRE	MJ	9.79E+2	3.92E+1	6.65E+0	1.02E+3	5.42E+0	3.45E+1	3.05E-1	-5.25E+2	5.40E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	9.79E+2	3.92E+1	6.65E+0	1.02E+3	5.42E+0	3.45E+1	3.05E-1	-5.25E+2	5.40E+2
PET	MJ	1.02E+3	3.96E+1	4.61E+1	1.11E+3	5.50E+0	3.61E+1	3.16E-1	-5.31E+2	6.21E+2
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	2.80E-1	4.47E-3	9.58E-2	3.80E-1	5.78E-4	1.87E-2	3.54E-4	-1.26E-1	2.73E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.22E-4	9.29E-5	9.53E-6	2.24E-4	1.31E-5	5.27E-5	3.46E-7	-1.12E-4	1.79E-4
NHWD	kg	1.09E+0	2.32E+0	2.92E-2	3.44E+0	3.17E-1	1.59E+0	1.27E+0	-3.75E-1	6.24E+0
RWD	kg	4.21E-4	2.42E-4	2.65E-5	6.89E-4	3.47E-5	1.24E-4	1.88E-6	-2.03E-4	6.46E-4
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