

Environmental Profile

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

Ecochain v3.5.80



Product: 3044318 - XS PP PipeDrain 120 BK 250 SN8 L=6 S/SP
Unit: 1 piece
Manufacturer: Wavin - PL -Buk - Extra products

Drainage made of double-walled Wavin X-Stream pipes and fittings are high-strength SN8 products in the diameter range DN/ID 100 – 800 mm. Efficient drainage is ensured by 1.5 mm wide longitudinal slots, and their area is not less than 50 cm2/m of pipe. Thanks to the availability of pipes in three types of perforation (TP, LP and MP), the drainage system can be easily adapted to the investment conditions.

LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified: Yes
Issue date: 08-06-2023
End of validity: 08-06-2028
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 - PL -Buk - Extra products (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]

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.94E+1	2.76E+0	1.45E-4	4.22E+1	6.27E-1	3.16E+1	2.95E-1	-2.94E+1	4.53E+1
GWP-f	kg CO2 eq	5.23E+1	2.76E+0	1.46E-4	5.50E+1	6.26E-1	1.84E+1	2.95E-1	-2.93E+1	4.51E+1
GWP-b	kg CO2 eq	-1.29E+1	1.67E-3	-1.54E-6	-1.29E+1	3.80E-4	1.32E+1	2.57E-4	-1.03E-1	1.78E-1
GWP-luluc	kg CO2 eq	2.12E-2	9.75E-4	1.49E-7	2.22E-2	2.22E-4	3.55E-3	5.01E-6	-7.63E-3	1.83E-2
ODP	kg CFC11 eq	1.55E-6	6.35E-7	8.26E-12	2.19E-6	1.44E-7	4.74E-7	7.40E-9	-1.26E-6	1.56E-6
AP	mol H+ eq	1.97E-1	1.57E-2	1.47E-6	2.13E-1	3.57E-3	2.05E-2	1.77E-4	-8.79E-2	1.49E-1
EP-fw	kg P eq	8.61E-4	2.27E-5	8.24E-9	8.83E-4	5.15E-6	1.03E-4	2.30E-7	-3.47E-4	6.44E-4
EP-m	kg N eq	3.41E-2	5.62E-3	1.55E-7	3.97E-2	1.28E-3	6.16E-3	1.15E-4	-1.62E-2	3.10E-2
EP-T	mol N eq	3.89E-1	6.19E-2	1.85E-6	4.51E-1	1.41E-2	6.79E-2	7.17E-4	-1.88E-1	3.45E-1
POCP	kg NMVOC eq	1.68E-1	1.77E-2	6.28E-7	1.86E-1	4.02E-3	2.12E-2	2.69E-4	-7.87E-2	1.32E-1
ADP-mm	kg Sb eq	7.80E-4	7.13E-5	1.97E-8	8.51E-4	1.62E-5	7.78E-5	1.78E-7	-2.00E-4	7.45E-4
ADP-f	MJ	1.78E+3	4.23E+1	1.36E-3	1.82E+3	9.61E+0	6.23E+1	5.40E-1	-9.18E+2	9.72E+2
WDP	m3 depriv.	3.48E+1	1.30E-1	5.22E-5	3.49E+1	2.95E-2	1.21E+0	2.70E-3	-1.62E+1	2.00E+1
PM	disease inc.	2.27E-6	2.49E-7	9.08E-12	2.52E-6	5.65E-8	3.30E-7	3.72E-9	-7.86E-7	2.13E-6
IR	kBq U-235 eq	1.09E+0	1.85E-1	1.02E-6	1.28E+0	4.20E-2	1.89E-1	2.51E-3	-4.48E-1	1.06E+0
ETP-fw	CTUe	3.99E+2	3.44E+1	1.21E-2	4.34E+2	7.81E+0	7.04E+1	4.52E-1	-1.70E+2	3.42E+2
HTP-c	CTUh	2.01E-8	1.22E-9	6.17E-13	2.13E-8	2.78E-10	9.22E-9	1.32E-11	-5.76E-9	2.51E-8
HTP-nc	CTUh	4.61E-7	4.10E-8	1.57E-11	5.02E-7	9.31E-9	1.06E-7	2.91E-10	-1.64E-7	4.54E-7
SQP	Pt	1.28E+3	3.62E+1	2.24E-3	1.31E+3	8.22E+0	4.97E+1	1.39E+0	-2.81E+2	1.09E+3
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.61E+2	6.07E-1	2.40E-2	3.62E+2	1.38E-1	3.05E+0	2.09E-2	-6.30E+1	3.02E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.61E+2	6.07E-1	2.40E-2	3.62E+2	1.38E-1	3.05E+0	2.09E-2	-6.30E+1	3.02E+2
PENRE	MJ	1.91E+3	4.49E+1	1.44E-3	1.95E+3	1.02E+1	6.63E+1	5.73E-1	-9.90E+2	1.04E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.91E+3	4.49E+1	1.44E-3	1.95E+3	1.02E+1	6.63E+1	5.73E-1	-9.90E+2	1.04E+3
PET	MJ	2.27E+3	4.55E+1	2.55E-2	2.31E+3	1.03E+1	6.94E+1	5.94E-1	-1.05E+3	1.34E+3
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	5.40E-1	4.79E-3	1.46E-6	5.44E-1	1.09E-3	3.69E-2	6.67E-4	-2.41E-1	3.42E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.27E-4	1.08E-4	2.73E-13	4.35E-4	2.46E-5	1.02E-4	6.51E-7	-2.26E-4	3.36E-4
NHWD	kg	2.47E+0	2.62E+0	1.05E-6	5.09E+0	5.96E-1	3.26E+0	2.38E+0	-8.29E-1	1.05E+1
RWD	kg	1.04E-3	2.88E-4	1.10E-13	1.32E-3	6.54E-5	2.40E-4	3.53E-6	-4.08E-4	1.23E-3
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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