

Environmental Profile

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

Ecochain v3.5.80



Product: 3044319 - XS PP PipeDrain 120 BK 400 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]

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	8.42E+1	5.46E+0	1.45E-4	8.97E+1	1.31E+0	6.43E+1	6.19E-1	-6.17E+1	9.42E+1
GWP-f	kg CO2 eq	1.09E+2	5.46E+0	1.46E-4	1.15E+2	1.31E+0	3.87E+1	6.19E-1	-6.15E+1	9.38E+1
GWP-b	kg CO2 eq	-2.50E+1	3.31E-3	-1.54E-6	-2.50E+1	7.97E-4	2.56E+1	5.39E-4	-2.15E-1	3.75E-1
GWP-luluc	kg CO2 eq	4.31E-2	1.93E-3	1.49E-7	4.51E-2	4.65E-4	7.44E-3	1.05E-5	-1.57E-2	3.73E-2
ODP	kg CFC11 eq	3.15E-6	1.26E-6	8.26E-12	4.41E-6	3.03E-7	9.92E-7	1.55E-8	-2.62E-6	3.10E-6
AP	mol H+ eq	4.09E-1	3.11E-2	1.47E-6	4.40E-1	7.48E-3	4.29E-2	3.70E-4	-1.83E-1	3.07E-1
EP-fw	kg P eq	1.78E-3	4.49E-5	8.24E-9	1.82E-3	1.08E-5	2.15E-4	4.82E-7	-7.24E-4	1.33E-3
EP-m	kg N eq	7.07E-2	1.11E-2	1.55E-7	8.18E-2	2.68E-3	1.28E-2	2.41E-4	-3.38E-2	6.38E-2
EP-T	mol N eq	8.07E-1	1.23E-1	1.85E-6	9.29E-1	2.95E-2	1.42E-1	1.50E-3	-3.90E-1	7.12E-1
POCP	kg NMVOC eq	3.49E-1	3.51E-2	6.28E-7	3.84E-1	8.43E-3	4.42E-2	5.64E-4	-1.64E-1	2.73E-1
ADP-mm	kg Sb eq	1.64E-3	1.41E-4	1.97E-8	1.78E-3	3.40E-5	1.63E-4	3.73E-7	-4.18E-4	1.56E-3
ADP-f	MJ	3.72E+3	8.38E+1	1.36E-3	3.80E+3	2.02E+1	1.30E+2	1.13E+0	-1.93E+3	2.03E+3
WDP	m3 depriv.	7.29E+1	2.57E-1	5.22E-5	7.31E+1	6.19E-2	2.54E+0	5.63E-3	-3.39E+1	4.19E+1
PM	disease inc.	4.65E-6	4.93E-7	9.08E-12	5.14E-6	1.19E-7	6.89E-7	7.79E-9	-1.63E-6	4.33E-6
IR	kBq U-235 eq	2.26E+0	3.66E-1	1.02E-6	2.63E+0	8.81E-2	3.96E-1	5.26E-3	-9.37E-1	2.18E+0
ETP-fw	CTUe	8.06E+2	6.80E+1	1.21E-2	8.74E+2	1.64E+1	1.47E+2	9.48E-1	-3.48E+2	6.91E+2
HTP-c	CTUh	4.05E-8	2.42E-9	6.17E-13	4.29E-8	5.82E-10	1.92E-8	2.76E-11	-1.19E-8	5.07E-8
HTP-nc	CTUh	9.30E-7	8.11E-8	1.57E-11	1.01E-6	1.95E-8	2.23E-7	6.10E-10	-3.40E-7	9.14E-7
SQP	Pt	2.49E+3	7.17E+1	2.24E-3	2.57E+3	1.72E+1	1.04E+2	2.91E+0	-5.51E+2	2.14E+3
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.79E+2	1.20E+0	2.40E-2	6.80E+2	2.89E-1	6.38E+0	4.39E-2	-1.25E+2	5.62E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.79E+2	1.20E+0	2.40E-2	6.80E+2	2.89E-1	6.38E+0	4.39E-2	-1.25E+2	5.62E+2
PENRE	MJ	3.99E+3	8.90E+1	1.44E-3	4.08E+3	2.14E+1	1.39E+2	1.20E+0	-2.08E+3	2.17E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.99E+3	8.90E+1	1.44E-3	4.08E+3	2.14E+1	1.39E+2	1.20E+0	-2.08E+3	2.17E+3
PET	MJ	4.67E+3	9.02E+1	2.55E-2	4.76E+3	2.17E+1	1.45E+2	1.25E+0	-2.20E+3	2.73E+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	1.13E+0	9.48E-3	1.46E-6	1.14E+0	2.28E-3	7.72E-2	1.40E-3	-5.05E-1	7.13E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.83E-4	2.14E-4	2.73E-13	8.98E-4	5.15E-5	2.14E-4	1.36E-6	-4.72E-4	6.92E-4
NHWD	kg	5.17E+0	5.19E+0	1.05E-6	1.04E+1	1.25E+0	6.80E+0	4.99E+0	-1.72E+0	2.17E+1
RWD	kg	2.13E-3	5.70E-4	1.10E-13	2.70E-3	1.37E-4	5.03E-4	7.40E-6	-8.53E-4	2.50E-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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