

Environmental Profile

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

Ecochain v3.5.80



Product: 3038976 - XS PP PipeDrain 220 BK 150 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	3.14E+0	1.99E-1	5.44E-3	3.34E+0	3.42E-2	1.05E+0	1.61E-2	-1.62E+0	2.82E+0
GWP-f	kg CO2 eq	3.23E+0	1.99E-1	5.49E-3	3.43E+0	3.42E-2	1.05E+0	1.61E-2	-1.61E+0	2.92E+0
GWP-b	kg CO2 eq	-9.98E-2	1.21E-4	-5.80E-5	-9.98E-2	2.08E-5	-1.37E-3	1.41E-5	-5.57E-3	-1.07E-1
GWP-luluc	kg CO2 eq	9.21E-3	7.03E-5	5.61E-6	9.28E-3	1.21E-5	1.93E-4	2.70E-7	-3.08E-4	9.18E-3
ODP	kg CFC11 eq	1.38E-7	4.58E-8	3.10E-10	1.84E-7	7.89E-9	2.54E-8	4.04E-10	-6.12E-8	1.56E-7
AP	mol H+ eq	1.30E-2	1.13E-3	5.54E-5	1.42E-2	1.95E-4	1.07E-3	9.62E-6	-4.48E-3	1.10E-2
EP-fw	kg P eq	5.05E-5	1.63E-6	3.09E-7	5.24E-5	2.82E-7	5.58E-6	1.25E-8	-1.75E-5	4.08E-5
EP-m	kg N eq	2.53E-3	4.05E-4	5.83E-6	2.94E-3	6.97E-5	3.12E-4	6.31E-6	-7.93E-4	2.53E-3
EP-T	mol N eq	2.97E-2	4.46E-3	6.97E-5	3.43E-2	7.69E-4	3.43E-3	3.91E-5	-8.78E-3	2.97E-2
POCP	kg NMVOC eq	1.13E-2	1.28E-3	2.36E-5	1.26E-2	2.20E-4	1.08E-3	1.47E-5	-4.05E-3	9.87E-3
ADP-mm	kg Sb eq	1.12E-4	5.14E-6	7.39E-7	1.17E-4	8.85E-7	4.19E-6	9.67E-9	-1.05E-5	1.12E-4
ADP-f	MJ	1.02E+2	3.05E+0	5.10E-2	1.05E+2	5.25E-1	3.35E+0	2.95E-2	-5.05E+1	5.89E+1
WDP	m3 depriv.	2.40E+0	9.36E-3	1.96E-3	2.42E+0	1.61E-3	6.61E-2	1.35E-4	-8.68E-1	1.62E+0
PM	disease inc.	1.33E-7	1.79E-8	3.41E-10	1.51E-7	3.09E-9	1.74E-8	2.03E-10	-3.74E-8	1.34E-7
IR	kBq U-235 eq	7.43E-2	1.33E-2	3.82E-5	8.77E-2	2.30E-3	1.01E-2	1.37E-4	-2.34E-2	7.69E-2
ETP-fw	CTUe	2.48E+1	2.48E+0	4.54E-1	2.77E+1	4.27E-1	3.89E+0	2.47E-2	-6.21E+0	2.59E+1
HTP-c	CTUh	1.24E-9	8.81E-11	2.32E-11	1.35E-9	1.52E-11	4.56E-10	7.11E-13	-2.66E-10	1.56E-9
HTP-nc	CTUh	2.86E-8	2.95E-9	5.88E-10	3.22E-8	5.08E-10	5.68E-9	1.58E-11	-7.51E-9	3.08E-8
SQP	Pt	2.18E+1	2.61E+0	8.42E-2	2.45E+1	4.49E-1	2.67E+0	7.58E-2	-1.35E+0	2.63E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.63E+0	4.37E-2	9.03E-1	8.58E+0	7.54E-3	1.66E-1	1.15E-3	-6.23E-1	8.13E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.63E+0	4.37E-2	9.03E-1	8.58E+0	7.54E-3	1.66E-1	1.15E-3	-6.23E-1	8.13E+0
PENRE	MJ	1.10E+2	3.24E+0	5.43E-2	1.13E+2	5.58E-1	3.57E+0	3.13E-2	-5.44E+1	6.29E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.10E+2	3.24E+0	5.43E-2	1.13E+2	5.58E-1	3.57E+0	3.13E-2	-5.44E+1	6.29E+1
PET	MJ	1.17E+2	3.28E+0	9.57E-1	1.22E+2	5.65E-1	3.74E+0	3.25E-2	-5.50E+1	7.10E+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	4.15E-2	3.45E-4	5.48E-5	4.19E-2	5.94E-5	1.95E-3	3.64E-5	-1.30E-2	3.09E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.85E-5	7.80E-6	1.03E-11	4.63E-5	1.34E-6	5.46E-6	3.54E-8	-1.20E-5	4.11E-5
NHWD	kg	4.65E-1	1.89E-1	3.96E-5	6.54E-1	3.26E-2	1.67E-1	1.30E-1	-3.88E-2	9.45E-1
RWD	kg	7.96E-5	2.07E-5	4.12E-12	1.00E-4	3.57E-6	1.28E-5	1.93E-7	-2.11E-5	9.59E-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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