

Environmental Profile

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

Ecochain v3.5.80



Product: 3011238 - X-Stream Click Inlet 125SW/200 VI BK
Unit: 1 piece
Manufacturer: Wavin - PL -Buk - Extra products

Wavin X-Stream is a new generation of double-walled pipes and fittings made of polypropylene. The system is

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	3.75E+0	1.28E-2	1.45E-4	3.77E+0	4.91E-2	3.10E+0	1.69E-2	-2.30E+0	4.64E+0
GWP-f	kg CO2 eq	4.81E+0	1.28E-2	1.46E-4	4.82E+0	4.90E-2	1.90E+0	1.69E-2	-2.54E+0	4.24E+0
GWP-b	kg CO2 eq	-1.06E+0	7.79E-6	-1.54E-6	-1.06E+0	2.98E-5	1.20E+0	2.09E-5	2.51E-1	3.97E-1
GWP-luluc	kg CO2 eq	5.35E-3	4.54E-6	1.49E-7	5.35E-3	1.73E-5	5.99E-4	4.07E-7	-3.73E-3	2.25E-3
ODP	kg CFC11 eq	2.17E-6	2.96E-9	8.26E-12	2.17E-6	1.13E-8	1.67E-7	6.05E-10	-1.03E-6	1.32E-6
AP	mol H+ eq	2.25E-2	7.31E-5	1.47E-6	2.26E-2	2.79E-4	2.96E-3	1.47E-5	-9.99E-3	1.58E-2
EP-fw	kg P eq	2.03E-4	1.06E-7	8.24E-9	2.04E-4	4.03E-7	2.01E-5	1.87E-8	-1.03E-4	1.21E-4
EP-m	kg N eq	4.07E-3	2.62E-5	1.55E-7	4.09E-3	9.99E-5	7.48E-4	1.10E-5	-1.92E-3	3.03E-3
EP-T	mol N eq	4.37E-2	2.88E-4	1.85E-6	4.40E-2	1.10E-3	8.24E-3	5.87E-5	-2.11E-2	3.23E-2
POCP	kg NMVOC eq	1.54E-2	8.24E-5	6.28E-7	1.55E-2	3.15E-4	2.45E-3	2.03E-5	-7.08E-3	1.12E-2
ADP-mm	kg Sb eq	2.97E-4	3.32E-7	1.97E-8	2.98E-4	1.27E-6	1.14E-5	1.45E-8	-5.00E-5	2.60E-4
ADP-f	MJ	1.20E+2	1.97E-1	1.36E-3	1.20E+2	7.52E-1	7.77E+0	4.42E-2	-5.88E+1	6.96E+1
WDP	m3 depriv.	6.54E+0	6.04E-4	5.22E-5	6.54E+0	2.31E-3	3.04E-1	2.07E-4	-3.26E+0	3.58E+0
PM	disease inc.	1.93E-7	1.16E-9	9.08E-12	1.94E-7	4.42E-9	3.62E-8	3.04E-10	-9.49E-8	1.40E-7
IR	kBq U-235 eq	2.60E-1	8.61E-4	1.02E-6	2.61E-1	3.29E-3	2.76E-2	2.05E-4	-1.17E-1	1.75E-1
ETP-fw	CTUe	1.13E+2	1.60E-1	1.21E-2	1.14E+2	6.11E-1	5.93E+1	6.51E-1	-5.27E+1	1.21E+2
HTP-c	CTUh	3.42E-9	5.69E-12	6.17E-13	3.42E-9	2.17E-11	8.43E-10	1.16E-12	-1.59E-9	2.70E-9
HTP-nc	CTUh	9.80E-8	1.91E-10	1.57E-11	9.82E-8	7.28E-10	2.08E-8	1.26E-10	-4.45E-8	7.54E-8
SQP	Pt	1.17E+2	1.69E-1	2.24E-3	1.17E+2	6.44E-1	4.74E+0	1.13E-1	-1.30E+2	-7.58E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.12E+1	2.83E-3	2.40E-2	3.12E+1	1.08E-2	5.52E-1	1.73E-3	-2.24E+1	9.42E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.12E+1	2.83E-3	2.40E-2	3.12E+1	1.08E-2	5.52E-1	1.73E-3	-2.24E+1	9.42E+0
PENRE	MJ	1.28E+2	2.09E-1	1.44E-3	1.28E+2	7.99E-1	8.26E+0	4.69E-2	-6.34E+1	7.42E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.28E+2	2.09E-1	1.44E-3	1.28E+2	7.99E-1	8.26E+0	4.69E-2	-6.34E+1	7.42E+1
PET	MJ	1.59E+2	2.12E-1	2.55E-2	1.60E+2	8.10E-1	8.81E+0	4.86E-2	-8.58E+1	8.36E+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	7.88E-2	2.23E-5	1.46E-6	7.88E-2	8.51E-5	8.83E-3	5.46E-5	-4.17E-2	4.62E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.84E-5	5.04E-7	2.73E-13	9.89E-5	1.92E-6	1.31E-5	5.31E-8	-5.34E-5	6.06E-5
NHWD	kg	4.97E-1	1.22E-2	1.05E-6	5.09E-1	4.66E-2	2.96E-1	1.95E-1	-2.15E-1	8.32E-1
RWD	kg	2.53E-4	1.34E-6	1.10E-13	2.55E-4	5.12E-6	2.99E-5	2.89E-7	-1.07E-4	1.83E-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