

Environmental Profile

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

Ecochain v3.5.80



Product: 3002730 - X-Stream Click Inlet 125SW/250 IT BK
Unit: 1 piece
Manufacturer: Wavin - PL -Buk - Extra products

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



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

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	5.42E+0	1.39E-2	1.45E-4	5.43E+0	6.87E-2	3.75E+0	2.38E-2	-3.18E+0	6.09E+0
GWP-f	kg CO2 eq	6.44E+0	1.39E-2	1.46E-4	6.45E+0	6.86E-2	2.57E+0	2.38E-2	-3.43E+0	5.69E+0
GWP-b	kg CO2 eq	-1.02E+0	8.41E-6	-1.54E-6	-1.02E+0	4.17E-5	1.18E+0	2.91E-5	2.46E-1	4.02E-1
GWP-luluc	kg CO2 eq	6.44E-3	4.90E-6	1.49E-7	6.45E-3	2.43E-5	8.22E-4	5.67E-7	-4.09E-3	3.20E-3
ODP	kg CFC11 eq	2.91E-6	3.19E-9	8.26E-12	2.92E-6	1.58E-8	2.27E-7	8.45E-10	-1.38E-6	1.78E-6
AP	mol H+ eq	2.97E-2	7.89E-5	1.47E-6	2.98E-2	3.91E-4	4.01E-3	2.04E-5	-1.30E-2	2.12E-2
EP-fw	kg P eq	2.66E-4	1.14E-7	8.24E-9	2.66E-4	5.65E-7	2.75E-5	2.61E-8	-1.29E-4	1.65E-4
EP-m	kg N eq	5.26E-3	2.82E-5	1.55E-7	5.28E-3	1.40E-4	1.01E-3	1.52E-5	-2.45E-3	4.00E-3
EP-T	mol N eq	5.66E-2	3.11E-4	1.85E-6	5.69E-2	1.54E-3	1.11E-2	8.19E-5	-2.67E-2	4.30E-2
POCP	kg NMVOC eq	2.02E-2	8.89E-5	6.28E-7	2.03E-2	4.41E-4	3.30E-3	2.84E-5	-9.16E-3	1.49E-2
ADP-mm	kg Sb eq	3.86E-4	3.58E-7	1.97E-8	3.87E-4	1.78E-6	1.55E-5	2.02E-8	-6.65E-5	3.38E-4
ADP-f	MJ	1.64E+2	2.13E-1	1.36E-3	1.64E+2	1.05E+0	1.06E+1	6.16E-2	-8.08E+1	9.50E+1
WDP	m3 depriv.	8.87E+0	6.53E-4	5.22E-5	8.87E+0	3.23E-3	4.16E-1	2.87E-4	-4.31E+0	4.99E+0
PM	disease inc.	2.47E-7	1.25E-9	9.08E-12	2.48E-7	6.20E-9	4.93E-8	4.24E-10	-1.14E-7	1.90E-7
IR	kBq U-235 eq	3.43E-1	9.29E-4	1.02E-6	3.44E-1	4.61E-3	3.76E-2	2.86E-4	-1.50E-1	2.36E-1
ETP-fw	CTUe	1.40E+2	1.73E-1	1.21E-2	1.40E+2	8.56E-1	8.04E+1	8.84E-1	-6.20E+1	1.60E+2
HTP-c	CTUh	4.58E-9	6.14E-12	6.17E-13	4.58E-9	3.05E-11	1.15E-9	1.62E-12	-1.97E-9	3.79E-9
HTP-nc	CTUh	1.32E-7	2.06E-10	1.57E-11	1.32E-7	1.02E-9	2.83E-8	1.72E-10	-5.55E-8	1.06E-7
SQP	Pt	1.21E+2	1.82E-1	2.24E-3	1.21E+2	9.02E-1	6.54E+0	1.58E-1	-1.29E+2	-9.20E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.63E+1	3.05E-3	2.40E-2	3.63E+1	1.51E-2	7.56E-1	2.40E-3	-2.27E+1	1.44E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.63E+1	3.05E-3	2.40E-2	3.63E+1	1.51E-2	7.56E-1	2.40E-3	-2.27E+1	1.44E+1
PENRE	MJ	1.76E+2	2.26E-1	1.44E-3	1.76E+2	1.12E+0	1.13E+1	6.54E-2	-8.72E+1	1.01E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.76E+2	2.26E-1	1.44E-3	1.76E+2	1.12E+0	1.13E+1	6.54E-2	-8.72E+1	1.01E+2
PET	MJ	2.12E+2	2.29E-1	2.55E-2	2.12E+2	1.13E+0	1.21E+1	6.78E-2	-1.10E+2	1.16E+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	1.05E-1	2.41E-5	1.46E-6	1.05E-1	1.19E-4	1.20E-2	7.61E-5	-5.27E-2	6.47E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.24E-4	5.44E-7	2.73E-13	1.25E-4	2.69E-6	1.78E-5	7.40E-8	-7.03E-5	7.50E-5
NHWD	kg	6.42E-1	1.32E-2	1.05E-6	6.55E-1	6.53E-2	4.05E-1	2.72E-1	-2.71E-1	1.13E+0
RWD	kg	3.31E-4	1.45E-6	1.10E-13	3.33E-4	7.17E-6	4.06E-5	4.03E-7	-1.37E-4	2.44E-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