Environmental Profile

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

Ecochain v3.5.64

Product:	3063981 - PE80 Pipe BK/BL 32x3,0 PN12,5 SDR11 L=50
Unit:	1 piece
Manufacturer:	Wavin - SE - Eskilstuna

For the safe transport of waste water from, for example, the household-property to the main pipe. The PE80 material is slightly more flexible than PE100 and is therefore excellent for rolled products.

LCA standard:	EN15804+A2 (2019)
Standard database:	Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified:	Yes
Issue date:	20-06-2022
End of validity:	20-06-2027
Verifier:	Harry van Ewijk - 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 - SE - Eskilstuna (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

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
C4 Disposal

Benefits and loads beyond the system boundaries

D Reuse- Recovery- Recycling- potential

Environmental impacts and parameters

GWP-total = EF Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF 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

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.95E+1	2.65E+0	9.81E-1	3.31E+1	3.72E-1	1.27E+1	2.06E-1	-1.89E+1	2.74E+1
GWP-f	kg CO2 eq	2.93E+1	2.65E+0	7.11E-1	3.27E+1	3.72E-1	1.27E+1	2.06E-1	-1.89E+1	2.71E+1
GWP-b	kg CO2 eq	1.31E-1	1.20E-3	1.87E-1	3.20E-1	2.26E-4	-1.49E-2	1.55E-4	-7.08E-2	2.34E-1
GWP-luluc	kg CO2 eq	8.84E-3	9.79E-4	8.27E-2	9.25E-2	1.32E-4	2.09E-3	2.96E-6	-4.24E-3	9.05E-2
ODP	kg CFC11 eq	1.56E-6	5.84E-7	8.06E-8	2.23E-6	8.57E-8	2.73E-7	4.40E-9	-9.17E-7	1.67E-6
AP	mol H+ eq	1.10E-1	1.61E-2	6.02E-3	1.33E-1	2.12E-3	1.15E-2	1.05E-4	-5.17E-2	9.45E-2
EP-fw	kg P eq	4.81E-4	2.66E-5	1.31E-5	5.20E-4	3.06E-6	6.04E-5	1.36E-7	-2.32E-4	3.52E-4
EP-m	kg N eq	1.84E-2	5.59E-3	1.79E-3	2.58E-2	7.58E-4	3.36E-3	7.42E-5	-9.48E-3	2.05E-2
EP-T	mol N eq	2.07E-1	6.17E-2	1.96E-2	2.89E-1	8.35E-3	3.70E-2	4.26E-4	-1.05E-1	2.29E-1
POCP	kg NMVOC eq	9.72E-2	1.75E-2	5.44E-3	1.20E-1	2.39E-3	1.17E-2	1.67E-4	-4.91E-2	8.54E-2
ADP-mm	kg Sb eq	3.57E-4	6.66E-5	2.14E-5	4.45E-4	9.62E-6	4.54E-5	1.05E-7	-1.20E-4	3.79E-4
ADP-f	MJ	1.02E+3	3.99E+1	7.07E+0	1.07E+3	5.71E+0	3.63E+1	3.21E-1	-5.62E+2	5.51E+2
WDP	m3 depriv.	2.23E+1	1.42E-1	4.55E+0	2.70E+1	1.75E-2	7.14E-1	1.47E-3	-1.09E+1	1.69E+1
PM	disease inc.	1.05E-6	2.36E-7	1.02E-7	1.39E-6	3.36E-8	1.89E-7	2.20E-9	-4.08E-7	1.21E-6
IR	kBq U-235 eq	8.77E-1	1.67E-1	2.10E-2	1.07E+0	2.50E-2	1.10E-1	1.50E-3	-3.38E-1	8.64E-1
ETP-fw	CTUe	1.92E+2	3.55E+1	1.97E+1	2.47E+2	4.64E+0	4.16E+1	2.83E-1	-8.13E+1	2.12E+2
HTP-c	CTUh	8.15E-9	1.16E-9	7.78E-10	1.01E-8	1.65E-10	4.96E-9	7.79E-12	-3.87E-9	1.13E-8
HTP-nc	CTUh	1.86E-7	3.87E-8	2.12E-8	2.46E-7	5.53E-9	6.24E-8	1.80E-10	-8.64E-8	2.28E-7
SQP	Pt	4.55E+1	3.44E+1	9.29E-1	8.08E+1	4.88E+0	2.90E+1	8.24E-1	-1.78E+1	9.78E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.68E+1	4.97E-1	4.46E+1	6.19E+1	8.19E-2	1.79E+0	1.27E-2	-8.08E+0	5.57E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.68E+1	4.97E-1	4.46E+1	6.19E+1	8.19E-2	1.79E+0	1.27E-2	-8.08E+0	5.57E+1
PENRE	MJ	1.10E+3	4.24E+1	7.50E+0	1.15E+3	6.06E+0	3.87E+1	3.41E-1	-6.07E+2	5.87E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.10E+3	4.24E+1	7.50E+0	1.15E+3	6.06E+0	3.87E+1	3.41E-1	-6.07E+2	5.87E+2
PET	MJ	1.12E+3	4.29E+1	5.21E+1	1.21E+3	6.14E+0	4.05E+1	3.53E-1	-6.15E+2	6.42E+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	3.44E-1	4.83E-3	1.08E-1	4.57E-1	6.46E-4	2.11E-2	3.97E-4	-1.66E-1	3.13E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.54E-4	1.01E-4	1.08E-5	2.65E-4	1.46E-5	5.94E-5	3.85E-7	-1.69E-4	1.71E-4
NHWD	kg	1.11E+0	2.51E+0	3.30E-2	3.65E+0	3.54E-1	1.81E+0	1.41E+0	-4.56E-1	6.77E+0
RWD	kg	9.55E-4	2.62E-4	2.99E-5	1.25E-3	3.88E-5	1.39E-4	2.10E-6	-3.14E-4	1.11E-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

Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
https://www.ecochain.com
+31 20 3035 777