Environmental Profile

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

Ecochain v3.5.64

Product:	3064051 - PE80 Pipe BK/BL 75 SDR11 L=100
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

This document and supporting material contain confidential and proprietary business information of Wavin - SE - Eskilstuna. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - SE - Eskilstuna.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.92E+2	2.75E+1	1.04E+1	3.30E+2	3.86E+0	1.32E+2	2.14E+0	-1.94E+2	2.74E+2
GWP-f	kg CO2 eq	2.96E+2	2.75E+1	7.51E+0	3.31E+2	3.86E+0	1.26E+2	2.14E+0	-1.93E+2	2.70E+2
GWP-b	kg CO2 eq	-4.19E+0	1.25E-2	1.98E+0	-2.20E+0	2.34E-3	5.48E+0	1.60E-3	-7.31E-1	2.55E+0
GWP-luluc	kg CO2 eq	9.34E-2	1.01E-2	8.74E-1	9.77E-1	1.36E-3	2.17E-2	3.06E-5	-4.47E-2	9.56E-1
ODP	kg CFC11 eq	1.63E-5	6.06E-6	8.51E-7	2.32E-5	8.89E-7	2.83E-6	4.56E-8	-9.30E-6	1.76E-5
AP	mol H+ eq	1.12E+0	1.67E-1	6.36E-2	1.35E+0	2.20E-2	1.19E-1	1.09E-3	-5.37E-1	9.55E-1
EP-fw	kg P eq	4.98E-3	2.75E-4	1.39E-4	5.40E-3	3.17E-5	6.26E-4	1.41E-6	-2.41E-3	3.64E-3
EP-m	kg N eq	1.87E-1	5.80E-2	1.89E-2	2.64E-1	7.86E-3	3.48E-2	7.69E-4	-9.84E-2	2.09E-1
EP-T	mol N eq	2.12E+0	6.39E-1	2.07E-1	2.96E+0	8.66E-2	3.82E-1	4.41E-3	-1.10E+0	2.34E+0
POCP	kg NMVOC eq	9.92E-1	1.82E-1	5.75E-2	1.23E+0	2.48E-2	1.21E-1	1.73E-3	-5.09E-1	8.70E-1
ADP-mm	kg Sb eq	3.72E-3	6.91E-4	2.26E-4	4.64E-3	9.97E-5	4.70E-4	1.09E-6	-1.25E-3	3.96E-3
ADP-f	MJ	1.05E+4	4.14E+2	7.47E+1	1.09E+4	5.92E+1	3.76E+2	3.33E+0	-5.79E+3	5.60E+3
WDP	m3 depriv.	2.26E+2	1.47E+0	4.81E+1	2.75E+2	1.82E-1	7.39E+0	1.52E-2	-1.12E+2	1.70E+2
PM	disease inc.	1.09E-5	2.45E-6	1.07E-6	1.44E-5	3.48E-7	1.96E-6	2.29E-8	-4.27E-6	1.25E-5
IR	kBq U-235 eq	9.10E+0	1.73E+0	2.22E-1	1.11E+1	2.59E-1	1.13E+0	1.55E-2	-3.50E+0	8.97E+0
ETP-fw	CTUe	1.97E+3	3.68E+2	2.08E+2	2.55E+3	4.81E+1	4.27E+2	2.93E+0	-8.63E+2	2.16E+3
HTP-c	CTUh	8.50E-8	1.20E-8	8.22E-9	1.05E-7	1.71E-9	5.10E-8	8.08E-11	-4.03E-8	1.18E-7
HTP-nc	CTUh	1.93E-6	4.02E-7	2.24E-7	2.55E-6	5.73E-8	6.42E-7	1.86E-9	-9.04E-7	2.35E-6
SQP	Pt	9.68E+2	3.56E+2	9.82E+0	1.33E+3	5.06E+1	3.01E+2	8.54E+0	-2.93E+2	1.40E+3
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.47E+2	5.16E+0	4.71E+2	7.23E+2	8.49E-1	1.86E+1	1.32E-1	-1.06E+2	6.37E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.47E+2	5.16E+0	4.71E+2	7.23E+2	8.49E-1	1.86E+1	1.32E-1	-1.06E+2	6.37E+2
PENRE	MJ	1.12E+4	4.39E+2	7.93E+1	1.17E+4	6.28E+1	4.01E+2	3.53E+0	-6.24E+3	5.96E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.12E+4	4.39E+2	7.93E+1	1.17E+4	6.28E+1	4.01E+2	3.53E+0	-6.24E+3	5.96E+3
PET	MJ	1.15E+4	4.44E+2	5.50E+2	1.25E+4	6.37E+1	4.20E+2	3.66E+0	-6.35E+3	6.60E+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	3.43E+0	5.01E-2	1.14E+0	4.63E+0	6.70E-3	2.18E-1	4.11E-3	-1.72E+0	3.14E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.63E-3	1.04E-3	1.14E-4	2.79E-3	1.51E-4	6.13E-4	3.99E-6	-1.71E-3	1.85E-3
NHWD	kg	1.15E+1	2.60E+1	3.48E-1	3.79E+1	3.67E+0	1.86E+1	1.47E+1	-4.76E+0	7.00E+1
RWD	kg	9.92E-3	2.72E-3	3.16E-4	1.29E-2	4.02E-4	1.44E-3	2.18E-5	-3.25E-3	1.16E-2
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