

# Environmental Profile

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

Ecochain v3.5.64



Product: 3063976 - PE80 Pipe BK/BL 32 SDR11 L=100  
 Unit: 1 piece  
 Manufacturer: Wavin - SE - Eskilstuna

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



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.

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

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# Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	5.76E+1	5.30E+0	1.96E+0	6.48E+1	7.44E-1	2.45E+1	4.12E-1	-3.75E+1	5.30E+1
GWP-f	kg CO2 eq	5.73E+1	5.29E+0	1.42E+0	6.40E+1	7.44E-1	2.45E+1	4.12E-1	-3.73E+1	5.24E+1
GWP-b	kg CO2 eq	2.77E-1	2.40E-3	3.74E-1	6.53E-1	4.52E-4	-2.97E-2	3.09E-4	-1.41E-1	4.83E-1
GWP-luluc	kg CO2 eq	1.74E-2	1.95E-3	1.65E-1	1.85E-1	2.63E-4	4.18E-3	5.91E-6	-8.46E-3	1.81E-1
ODP	kg CFC11 eq	3.11E-6	1.17E-6	1.61E-7	4.44E-6	1.71E-7	5.44E-7	8.79E-9	-1.80E-6	3.37E-6
AP	mol H+ eq	2.16E-1	3.23E-2	1.20E-2	2.60E-1	4.24E-3	2.29E-2	2.10E-4	-1.03E-1	1.84E-1
EP-fw	kg P eq	9.51E-4	5.30E-5	2.62E-5	1.03E-3	6.12E-6	1.21E-4	2.72E-7	-4.63E-4	6.94E-4
EP-m	kg N eq	3.60E-2	1.12E-2	3.57E-3	5.07E-2	1.52E-3	6.67E-3	1.48E-4	-1.89E-2	4.02E-2
EP-T	mol N eq	4.06E-1	1.23E-1	3.92E-2	5.68E-1	1.67E-2	7.34E-2	8.52E-4	-2.10E-1	4.49E-1
POCP	kg NMVOC eq	1.91E-1	3.50E-2	1.09E-2	2.37E-1	4.78E-3	2.32E-2	3.34E-4	-9.78E-2	1.67E-1
ADP-mm	kg Sb eq	7.11E-4	1.33E-4	4.28E-5	8.87E-4	1.92E-5	9.05E-5	2.10E-7	-2.40E-4	7.56E-4
ADP-f	MJ	2.02E+3	7.97E+1	1.41E+1	2.11E+3	1.14E+1	7.25E+1	6.42E-1	-1.12E+3	1.08E+3
WDP	m3 depriv.	4.37E+1	2.84E-1	9.10E+0	5.31E+1	3.50E-2	1.42E+0	2.94E-3	-2.17E+1	3.29E+1
PM	disease inc.	2.06E-6	4.72E-7	2.03E-7	2.73E-6	6.71E-8	3.77E-7	4.41E-9	-8.15E-7	2.36E-6
IR	kBq U-235 eq	1.74E+0	3.34E-1	4.20E-2	2.12E+0	4.99E-2	2.19E-1	2.99E-3	-6.74E-1	1.72E+0
ETP-fw	CTUe	3.76E+2	7.09E+1	3.94E+1	4.86E+2	9.27E+0	8.25E+1	5.66E-1	-1.62E+2	4.16E+2
HTP-c	CTUh	1.60E-8	2.31E-9	1.56E-9	1.99E-8	3.30E-10	9.80E-9	1.56E-11	-7.71E-9	2.23E-8
HTP-nc	CTUh	3.68E-7	7.74E-8	4.24E-8	4.87E-7	1.11E-8	1.24E-7	3.60E-10	-1.72E-7	4.50E-7
SQP	Pt	8.81E+1	6.86E+1	1.86E+0	1.59E+2	9.77E+0	5.79E+1	1.65E+0	-3.54E+1	1.93E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.29E+1	9.93E-1	8.91E+1	1.23E+2	1.64E-1	3.58E+0	2.54E-2	-1.61E+1	1.11E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.29E+1	9.93E-1	8.91E+1	1.23E+2	1.64E-1	3.58E+0	2.54E-2	-1.61E+1	1.11E+2
PENRE	MJ	2.17E+3	8.46E+1	1.50E+1	2.27E+3	1.21E+1	7.73E+1	6.81E-1	-1.21E+3	1.15E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.17E+3	8.46E+1	1.50E+1	2.27E+3	1.21E+1	7.73E+1	6.81E-1	-1.21E+3	1.15E+3
PET	MJ	2.20E+3	8.56E+1	1.04E+2	2.39E+3	1.23E+1	8.08E+1	7.06E-1	-1.22E+3	1.26E+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	6.66E-1	9.66E-3	2.16E-1	8.92E-1	1.29E-3	4.19E-2	7.93E-4	-3.31E-1	6.04E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.06E-4	2.01E-4	2.15E-5	5.28E-4	2.92E-5	1.18E-4	7.70E-7	-3.30E-4	3.46E-4
NHWD	kg	2.17E+0	5.01E+0	6.59E-2	7.25E+0	7.08E-1	3.58E+0	2.83E+0	-9.10E-1	1.34E+1
RWD	kg	1.90E-3	5.24E-4	5.98E-5	2.48E-3	7.76E-5	2.77E-4	4.20E-6	-6.26E-4	2.22E-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