

# Environmental Profile

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

Ecochain v3.5.64



Product: 3076845 - Wavin RIB PP Pipe BR 315 SN8 L=3 S/PL  
 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



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 non-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	2.84E+1	2.95E+0	9.87E-1	3.23E+1	4.05E-1	1.50E+1	1.91E-1	-1.88E+1	2.91E+1
GWP-f	kg CO2 eq	3.15E+1	2.95E+0	7.16E-1	3.52E+1	4.05E-1	1.18E+1	1.91E-1	-1.87E+1	2.88E+1
GWP-b	kg CO2 eq	-3.14E+0	1.33E-3	1.88E-1	-2.95E+0	2.46E-4	3.26E+0	1.66E-4	-6.57E-2	2.43E-1
GWP-luluc	kg CO2 eq	9.74E-3	1.09E-3	8.32E-2	9.40E-2	1.43E-4	2.27E-3	3.24E-6	-3.63E-3	9.28E-2
ODP	kg CFC11 eq	6.46E-7	6.51E-7	8.11E-8	1.38E-6	9.33E-8	2.95E-7	4.79E-9	-6.92E-7	1.08E-6
AP	mol H+ eq	1.14E-1	1.83E-2	6.06E-3	1.38E-1	2.31E-3	1.24E-2	1.14E-4	-5.27E-2	1.00E-1
EP-fw	kg P eq	4.74E-4	2.95E-5	1.32E-5	5.17E-4	3.33E-6	6.55E-5	1.49E-7	-2.07E-4	3.79E-4
EP-m	kg N eq	1.93E-2	6.29E-3	1.80E-3	2.74E-2	8.25E-4	3.61E-3	7.44E-5	-9.31E-3	2.26E-2
EP-T	mol N eq	2.18E-1	6.94E-2	1.97E-2	3.07E-1	9.09E-3	3.97E-2	4.63E-4	-1.03E-1	2.53E-1
POCP	kg NMVOC eq	9.97E-2	1.97E-2	5.48E-3	1.25E-1	2.60E-3	1.26E-2	1.74E-4	-4.76E-2	9.26E-2
ADP-mm	kg Sb eq	4.32E-4	7.40E-5	2.15E-5	5.28E-4	1.05E-5	4.92E-5	1.15E-7	-1.24E-4	4.63E-4
ADP-f	MJ	1.11E+3	4.44E+1	7.11E+0	1.16E+3	6.21E+0	3.94E+1	3.49E-1	-5.92E+2	6.17E+2
WDP	m3 depriv.	2.18E+1	1.58E-1	4.58E+0	2.66E+1	1.91E-2	7.73E-1	1.74E-3	-1.03E+1	1.71E+1
PM	disease inc.	1.04E-6	2.62E-7	1.02E-7	1.40E-6	3.65E-8	2.05E-7	2.40E-9	-4.41E-7	1.20E-6
IR	kBq U-235 eq	5.91E-1	1.86E-1	2.11E-2	7.99E-1	2.72E-2	1.19E-1	1.62E-3	-2.75E-1	6.71E-1
ETP-fw	CTUe	1.78E+2	3.95E+1	1.98E+1	2.37E+2	5.05E+0	4.45E+1	2.92E-1	-7.31E+1	2.14E+2
HTP-c	CTUh	8.62E-9	1.29E-9	7.83E-10	1.07E-8	1.80E-10	5.35E-9	8.52E-12	-3.13E-9	1.31E-8
HTP-nc	CTUh	2.13E-7	4.31E-8	2.13E-8	2.77E-7	6.02E-9	6.62E-8	1.88E-10	-8.86E-8	2.61E-7
SQP	Pt	3.14E+2	3.81E+1	9.35E-1	3.53E+2	5.32E+0	3.15E+1	8.97E-1	-1.59E+1	3.75E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.34E+1	5.53E-1	4.48E+1	1.09E+2	8.91E-2	1.94E+0	1.35E-2	-7.35E+0	1.04E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.34E+1	5.53E-1	4.48E+1	1.09E+2	8.91E-2	1.94E+0	1.35E-2	-7.35E+0	1.04E+2
PENRE	MJ	1.19E+3	4.72E+1	7.55E+0	1.25E+3	6.60E+0	4.20E+1	3.71E-1	-6.38E+2	6.59E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.19E+3	4.72E+1	7.55E+0	1.25E+3	6.60E+0	4.20E+1	3.71E-1	-6.38E+2	6.59E+2
PET	MJ	1.26E+3	4.77E+1	5.24E+1	1.36E+3	6.69E+0	4.39E+1	3.84E-1	-6.45E+2	7.62E+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	3.29E-1	5.37E-3	1.09E-1	4.43E-1	7.03E-4	2.27E-2	4.31E-4	-1.53E-1	3.14E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.55E-4	1.12E-4	1.08E-5	2.78E-4	1.59E-5	6.40E-5	4.21E-7	-1.36E-4	2.22E-4
NHWD	kg	1.46E+0	2.78E+0	3.32E-2	4.28E+0	3.85E-1	1.93E+0	1.54E+0	-4.56E-1	7.68E+0
RWD	kg	5.27E-4	2.92E-4	3.01E-5	8.49E-4	4.23E-5	1.50E-4	2.28E-6	-2.47E-4	7.97E-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



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