

Environmental Profile

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

Ecochain v3.5.64



Product: 3076841 - Wavin RIB PP Pipe BR 200 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 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	1.18E+1	1.22E+0	4.30E-1	1.34E+1	1.67E-1	6.11E+0	7.86E-2	-7.75E+0	1.20E+1
GWP-f	kg CO2 eq	1.30E+1	1.22E+0	3.12E-1	1.45E+1	1.67E-1	4.85E+0	7.87E-2	-7.72E+0	1.19E+1
GWP-b	kg CO2 eq	-1.21E+0	5.50E-4	8.21E-2	-1.13E+0	1.01E-4	1.26E+0	6.85E-5	-2.71E-2	1.05E-1
GWP-luluc	kg CO2 eq	3.98E-3	4.50E-4	3.63E-2	4.07E-2	5.90E-5	9.36E-4	1.33E-6	-1.50E-3	4.02E-2
ODP	kg CFC11 eq	2.65E-7	2.68E-7	3.53E-8	5.68E-7	3.84E-8	1.22E-7	1.97E-9	-2.85E-7	4.45E-7
AP	mol H+ eq	4.68E-2	7.52E-3	2.64E-3	5.70E-2	9.50E-4	5.11E-3	4.70E-5	-2.17E-2	4.14E-2
EP-fw	kg P eq	1.95E-4	1.22E-5	5.76E-6	2.13E-4	1.37E-6	2.70E-5	6.13E-8	-8.52E-5	1.56E-4
EP-m	kg N eq	7.94E-3	2.59E-3	7.83E-4	1.13E-2	3.40E-4	1.49E-3	3.06E-5	-3.84E-3	9.34E-3
EP-T	mol N eq	8.97E-2	2.86E-2	8.59E-3	1.27E-1	3.75E-3	1.64E-2	1.91E-4	-4.25E-2	1.05E-1
POCP	kg NMVOC eq	4.10E-2	8.12E-3	2.39E-3	5.15E-2	1.07E-3	5.18E-3	7.17E-5	-1.96E-2	3.82E-2
ADP-mm	kg Sb eq	1.80E-4	3.05E-5	9.39E-6	2.20E-4	4.32E-6	2.03E-5	4.74E-8	-5.13E-5	1.94E-4
ADP-f	MJ	4.58E+2	1.83E+1	3.10E+0	4.80E+2	2.56E+0	1.62E+1	1.44E-1	-2.44E+2	2.55E+2
WDP	m3 depriv.	9.00E+0	6.50E-2	2.00E+0	1.11E+1	7.86E-3	3.19E-1	7.16E-4	-4.23E+0	7.16E+0
PM	disease inc.	4.26E-7	1.08E-7	4.46E-8	5.79E-7	1.51E-8	8.43E-8	9.90E-10	-1.82E-7	4.97E-7
IR	kBq U-235 eq	2.43E-1	7.68E-2	9.22E-3	3.29E-1	1.12E-2	4.89E-2	6.68E-4	-1.13E-1	2.77E-1
ETP-fw	CTUe	7.30E+1	1.63E+1	8.64E+0	9.79E+1	2.08E+0	1.83E+1	1.20E-1	-3.01E+1	8.83E+1
HTP-c	CTUh	3.53E-9	5.33E-10	3.41E-10	4.40E-9	7.40E-11	2.21E-9	3.51E-12	-1.29E-9	5.39E-9
HTP-nc	CTUh	8.76E-8	1.78E-8	9.30E-9	1.15E-7	2.48E-9	2.73E-8	7.75E-11	-3.65E-8	1.08E-7
SQP	Pt	1.23E+2	1.57E+1	4.08E-1	1.39E+2	2.19E+0	1.30E+1	3.69E-1	-6.54E+0	1.48E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.49E+1	2.28E-1	1.95E+1	4.47E+1	3.67E-2	8.01E-1	5.58E-3	-3.03E+0	4.25E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.49E+1	2.28E-1	1.95E+1	4.47E+1	3.67E-2	8.01E-1	5.58E-3	-3.03E+0	4.25E+1
PENRE	MJ	4.92E+2	1.94E+1	3.29E+0	5.14E+2	2.72E+0	1.73E+1	1.53E-1	-2.63E+2	2.72E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.92E+2	1.94E+1	3.29E+0	5.14E+2	2.72E+0	1.73E+1	1.53E-1	-2.63E+2	2.72E+2
PET	MJ	5.17E+2	1.97E+1	2.28E+1	5.59E+2	2.76E+0	1.81E+1	1.58E-1	-2.66E+2	3.14E+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	1.36E-1	2.21E-3	4.74E-2	1.85E-1	2.90E-4	9.37E-3	1.78E-4	-6.32E-2	1.32E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.39E-5	4.61E-5	4.72E-6	1.15E-4	6.55E-6	2.64E-5	1.73E-7	-5.60E-5	9.17E-5
NHWD	kg	5.99E-1	1.15E+0	1.45E-2	1.76E+0	1.59E-1	7.96E-1	6.34E-1	-1.88E-1	3.16E+0
RWD	kg	2.16E-4	1.20E-4	1.31E-5	3.50E-4	1.74E-5	6.20E-5	9.40E-7	-1.02E-4	3.28E-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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