

Environmental Profile

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

Ecochain v3.5.64



Product: 3076843 - Wavin RIB PP Pipe BR 250 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	1.79E+1	1.84E+0	6.64E-1	2.04E+1	2.51E-1	8.94E+0	1.18E-1	-1.17E+1	1.81E+1
GWP-f	kg CO2 eq	1.95E+1	1.83E+0	4.81E-1	2.18E+1	2.51E-1	7.30E+0	1.18E-1	-1.16E+1	1.79E+1
GWP-b	kg CO2 eq	-1.57E+0	8.29E-4	1.27E-1	-1.44E+0	1.53E-4	1.64E+0	1.03E-4	-4.08E-2	1.61E-1
GWP-luluc	kg CO2 eq	5.85E-3	6.78E-4	5.59E-2	6.25E-2	8.89E-5	1.41E-3	2.01E-6	-2.25E-3	6.17E-2
ODP	kg CFC11 eq	3.92E-7	4.04E-7	5.45E-8	8.51E-7	5.79E-8	1.83E-7	2.97E-9	-4.29E-7	6.66E-7
AP	mol H+ eq	7.02E-2	1.13E-2	4.08E-3	8.56E-2	1.43E-3	7.70E-3	7.08E-5	-3.27E-2	6.21E-2
EP-fw	kg P eq	2.92E-4	1.83E-5	8.88E-6	3.19E-4	2.07E-6	4.07E-5	9.23E-8	-1.28E-4	2.33E-4
EP-m	kg N eq	1.19E-2	3.91E-3	1.21E-3	1.70E-2	5.12E-4	2.24E-3	4.62E-5	-5.78E-3	1.40E-2
EP-T	mol N eq	1.34E-1	4.31E-2	1.33E-2	1.90E-1	5.64E-3	2.46E-2	2.88E-4	-6.40E-2	1.57E-1
POCP	kg NMVOC eq	6.14E-2	1.22E-2	3.68E-3	7.73E-2	1.61E-3	7.80E-3	1.08E-4	-2.96E-2	5.73E-2
ADP-mm	kg Sb eq	2.72E-4	4.60E-5	1.45E-5	3.32E-4	6.50E-6	3.05E-5	7.14E-8	-7.72E-5	2.92E-4
ADP-f	MJ	6.89E+2	2.76E+1	4.78E+0	7.22E+2	3.86E+0	2.45E+1	2.17E-1	-3.68E+2	3.83E+2
WDP	m3 depriv.	1.35E+1	9.80E-2	3.08E+0	1.67E+1	1.18E-2	4.80E-1	1.08E-3	-6.37E+0	1.08E+1
PM	disease inc.	6.36E-7	1.63E-7	6.88E-8	8.68E-7	2.27E-8	1.27E-7	1.49E-9	-2.74E-7	7.45E-7
IR	kBq U-235 eq	3.64E-1	1.16E-1	1.42E-2	4.94E-1	1.69E-2	7.37E-2	1.01E-3	-1.71E-1	4.15E-1
ETP-fw	CTUe	1.09E+2	2.45E+1	1.33E+1	1.47E+2	3.13E+0	2.76E+1	1.81E-1	-4.54E+1	1.32E+2
HTP-c	CTUh	5.20E-9	8.02E-10	5.27E-10	6.53E-9	1.11E-10	3.32E-9	5.29E-12	-1.94E-9	8.03E-9
HTP-nc	CTUh	1.31E-7	2.68E-8	1.44E-8	1.72E-7	3.73E-9	4.11E-8	1.17E-10	-5.50E-8	1.62E-7
SQP	Pt	1.63E+2	2.37E+1	6.29E-1	1.87E+2	3.30E+0	1.95E+1	5.57E-1	-9.85E+0	2.01E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.44E+1	3.43E-1	3.02E+1	6.49E+1	5.53E-2	1.21E+0	8.40E-3	-4.56E+0	6.16E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.44E+1	3.43E-1	3.02E+1	6.49E+1	5.53E-2	1.21E+0	8.40E-3	-4.56E+0	6.16E+1
PENRE	MJ	7.40E+2	2.93E+1	5.08E+0	7.74E+2	4.09E+0	2.61E+1	2.30E-1	-3.96E+2	4.08E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	7.40E+2	2.93E+1	5.08E+0	7.74E+2	4.09E+0	2.61E+1	2.30E-1	-3.96E+2	4.08E+2
PET	MJ	7.74E+2	2.96E+1	3.52E+1	8.39E+2	4.15E+0	2.73E+1	2.38E-1	-4.01E+2	4.70E+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	2.04E-1	3.34E-3	7.32E-2	2.80E-1	4.36E-4	1.41E-2	2.67E-4	-9.53E-2	2.00E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.45E-5	6.94E-5	7.28E-6	1.71E-4	9.86E-6	3.97E-5	2.61E-7	-8.44E-5	1.37E-4
NHWD	kg	8.87E-1	1.73E+0	2.23E-2	2.64E+0	2.39E-1	1.20E+0	9.56E-1	-2.83E-1	4.75E+0
RWD	kg	3.23E-4	1.81E-4	2.02E-5	5.25E-4	2.62E-5	9.34E-5	1.42E-6	-1.53E-4	4.92E-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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