

Environmental Profile

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

Ecochain v3.5.64



Product: 3076848 - Wavin RIB PP Pipe BR 400 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	4.20E+1	4.65E+0	1.58E+0	4.82E+1	6.39E-1	2.73E+1	3.01E-1	-2.97E+1	4.68E+1
GWP-f	kg CO2 eq	5.05E+1	4.64E+0	1.14E+0	5.63E+1	6.38E-1	1.85E+1	3.01E-1	-2.96E+1	4.62E+1
GWP-b	kg CO2 eq	-8.55E+0	2.10E-3	3.01E-1	-8.25E+0	3.88E-4	8.74E+0	2.62E-4	-1.04E-1	3.85E-1
GWP-luluc	kg CO2 eq	1.74E-2	1.72E-3	1.33E-1	1.52E-1	2.26E-4	3.58E-3	5.11E-6	-5.73E-3	1.50E-1
ODP	kg CFC11 eq	1.11E-6	1.02E-6	1.30E-7	2.26E-6	1.47E-7	4.66E-7	7.55E-9	-1.09E-6	1.79E-6
AP	mol H+ eq	1.84E-1	2.88E-2	9.69E-3	2.23E-1	3.64E-3	1.96E-2	1.80E-4	-8.32E-2	1.63E-1
EP-fw	kg P eq	7.84E-4	4.64E-5	2.11E-5	8.51E-4	5.25E-6	1.03E-4	2.34E-7	-3.26E-4	6.34E-4
EP-m	kg N eq	3.18E-2	9.91E-3	2.87E-3	4.45E-2	1.30E-3	5.69E-3	1.17E-4	-1.47E-2	3.70E-2
EP-T	mol N eq	3.58E-1	1.09E-1	3.15E-2	4.99E-1	1.43E-2	6.26E-2	7.31E-4	-1.63E-1	4.14E-1
POCP	kg NMVOC eq	1.63E-1	3.10E-2	8.75E-3	2.03E-1	4.10E-3	1.98E-2	2.74E-4	-7.51E-2	1.52E-1
ADP-mm	kg Sb eq	7.02E-4	1.16E-4	3.44E-5	8.53E-4	1.65E-5	7.76E-5	1.81E-7	-1.96E-4	7.51E-4
ADP-f	MJ	1.77E+3	6.98E+1	1.14E+1	1.85E+3	9.80E+0	6.22E+1	5.51E-1	-9.34E+2	9.86E+2
WDP	m3 depriv.	3.46E+1	2.48E-1	7.32E+0	4.22E+1	3.01E-2	1.22E+0	2.74E-3	-1.62E+1	2.73E+1
PM	disease inc.	1.73E-6	4.13E-7	1.63E-7	2.31E-6	5.76E-8	3.23E-7	3.79E-9	-6.96E-7	2.00E-6
IR	kBq U-235 eq	9.69E-1	2.93E-1	3.38E-2	1.30E+0	4.28E-2	1.87E-1	2.55E-3	-4.33E-1	1.09E+0
ETP-fw	CTUe	3.03E+2	6.21E+1	3.17E+1	3.96E+2	7.96E+0	7.01E+1	4.61E-1	-1.15E+2	3.60E+2
HTP-c	CTUh	1.65E-8	2.03E-9	1.25E-9	1.98E-8	2.83E-10	8.44E-9	1.34E-11	-4.93E-9	2.36E-8
HTP-nc	CTUh	3.65E-7	6.77E-8	3.41E-8	4.67E-7	9.48E-9	1.04E-7	2.97E-10	-1.40E-7	4.42E-7
SQP	Pt	7.98E+2	5.99E+1	1.49E+0	8.59E+2	8.38E+0	4.97E+1	1.41E+0	-2.50E+1	8.94E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.46E+2	8.69E-1	7.17E+1	2.18E+2	1.41E-1	3.07E+0	2.14E-2	-1.16E+1	2.10E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.46E+2	8.69E-1	7.17E+1	2.18E+2	1.41E-1	3.07E+0	2.14E-2	-1.16E+1	2.10E+2
PENRE	MJ	1.90E+3	7.42E+1	1.21E+1	1.98E+3	1.04E+1	6.62E+1	5.84E-1	-1.01E+3	1.05E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.90E+3	7.42E+1	1.21E+1	1.98E+3	1.04E+1	6.62E+1	5.84E-1	-1.01E+3	1.05E+3
PET	MJ	2.04E+3	7.50E+1	8.37E+1	2.20E+3	1.05E+1	6.93E+1	6.06E-1	-1.02E+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	5.25E-1	8.44E-3	1.74E-1	7.08E-1	1.11E-3	3.59E-2	6.79E-4	-2.42E-1	5.03E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.80E-4	1.76E-4	1.73E-5	4.73E-4	2.51E-5	1.01E-4	6.63E-7	-2.14E-4	3.85E-4
NHWD	kg	2.60E+0	4.38E+0	5.30E-2	7.03E+0	6.07E-1	3.05E+0	2.43E+0	-7.18E-1	1.24E+1
RWD	kg	8.75E-4	4.59E-4	4.81E-5	1.38E-3	6.66E-5	2.37E-4	3.60E-6	-3.90E-4	1.30E-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



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