

Environmental Profile

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

Ecochain v3.5.64



Product: 3083147 - Wavin RIB PP Pipe BK 400 SN8 L=6 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					Use stage							End-of-Life stage				
A1 Raw material supply A2 Transport A3 Manufacturing					B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment B6 Operational energy use B7 Operational water use							C1 De-construction demolition C2 Transport C3 Waste processing C4 Disposal				
Construction process stage					Benefits and loads beyond the system boundaries											
A4 Transport gate to site A5 Assembly / Construction installation process					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	8.58E+1	8.99E+0	3.15E+0	9.80E+1	1.23E+0	4.52E+1	5.78E-1	-5.69E+1	8.81E+1
GWP-f	kg CO2 eq	9.51E+1	8.99E+0	2.29E+0	1.06E+2	1.22E+0	3.56E+1	5.78E-1	-5.67E+1	8.70E+1
GWP-b	kg CO2 eq	-9.28E+0	4.07E-3	6.02E-1	-8.67E+0	7.44E-4	9.64E+0	5.03E-4	-1.99E-1	7.73E-1
GWP-luluc	kg CO2 eq	2.93E-2	3.32E-3	2.66E-1	2.98E-1	4.34E-4	6.88E-3	9.80E-6	-1.10E-2	2.95E-1
ODP	kg CFC11 eq	1.88E-6	1.98E-6	2.59E-7	4.12E-6	2.82E-7	8.94E-7	1.45E-8	-2.09E-6	3.22E-6
AP	mol H+ eq	3.42E-1	5.52E-2	1.94E-2	4.17E-1	6.98E-3	3.76E-2	3.45E-4	-1.60E-1	3.02E-1
EP-fw	kg P eq	1.43E-3	8.99E-5	4.22E-5	1.57E-3	1.01E-5	1.98E-4	4.50E-7	-6.26E-4	1.15E-3
EP-m	kg N eq	5.79E-2	1.91E-2	5.74E-3	8.27E-2	2.50E-3	1.09E-2	2.25E-4	-2.82E-2	6.81E-2
EP-T	mol N eq	6.53E-1	2.10E-1	6.30E-2	9.26E-1	2.75E-2	1.20E-1	1.40E-3	-3.12E-1	7.63E-1
POCP	kg NMVOC eq	3.00E-1	5.98E-2	1.75E-2	3.77E-1	7.87E-3	3.80E-2	5.26E-4	-1.44E-1	2.80E-1
ADP-mm	kg Sb eq	1.30E-3	2.26E-4	6.88E-5	1.59E-3	3.17E-5	1.49E-4	3.48E-7	-3.76E-4	1.40E-3
ADP-f	MJ	3.36E+3	1.35E+2	2.27E+1	3.52E+3	1.88E+1	1.19E+2	1.06E+0	-1.79E+3	1.87E+3
WDP	m3 depriv.	6.60E+1	4.80E-1	1.46E+1	8.12E+1	5.77E-2	2.34E+0	5.27E-3	-3.10E+1	5.25E+1
PM	disease inc.	3.12E-6	8.00E-7	3.27E-7	4.24E-6	1.11E-7	6.19E-7	7.27E-9	-1.33E-6	3.65E-6
IR	kBq U-235 eq	1.77E+0	5.67E-1	6.76E-2	2.40E+0	8.22E-2	3.59E-1	4.90E-3	-8.32E-1	2.02E+0
ETP-fw	CTUe	5.34E+2	1.20E+2	6.34E+1	7.17E+2	1.53E+1	1.35E+2	8.85E-1	-2.21E+2	6.47E+2
HTP-c	CTUh	2.68E-8	3.93E-9	2.50E-9	3.33E-8	5.43E-10	1.62E-8	2.58E-11	-9.46E-9	4.06E-8
HTP-nc	CTUh	6.48E-7	1.31E-7	6.82E-8	8.47E-7	1.82E-8	2.00E-7	5.69E-10	-2.68E-7	7.99E-7
SQP	Pt	9.27E+2	1.16E+2	2.99E+0	1.05E+3	1.61E+1	9.53E+1	2.71E+0	-4.80E+1	1.11E+3
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.80E+2	1.68E+0	1.43E+2	3.25E+2	2.70E-1	5.88E+0	4.10E-2	-2.23E+1	3.09E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.80E+2	1.68E+0	1.43E+2	3.25E+2	2.70E-1	5.88E+0	4.10E-2	-2.23E+1	3.09E+2
PENRE	MJ	3.61E+3	1.44E+2	2.41E+1	3.77E+3	2.00E+1	1.27E+2	1.12E+0	-1.93E+3	1.99E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.61E+3	1.44E+2	2.41E+1	3.77E+3	2.00E+1	1.27E+2	1.12E+0	-1.93E+3	1.99E+3
PET	MJ	3.79E+3	1.45E+2	1.67E+2	4.10E+3	2.02E+1	1.33E+2	1.16E+0	-1.95E+3	2.30E+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	9.95E-1	1.64E-2	3.48E-1	1.36E+0	2.13E-3	6.88E-2	1.30E-3	-4.64E-1	9.67E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.65E-4	3.40E-4	3.46E-5	8.40E-4	4.81E-5	1.94E-4	1.27E-6	-4.11E-4	6.71E-4
NHWD	kg	4.18E+0	8.49E+0	1.06E-1	1.28E+1	1.17E+0	5.85E+0	4.66E+0	-1.38E+0	2.31E+1
RWD	kg	1.56E-3	8.89E-4	9.62E-5	2.55E-3	1.28E-4	4.55E-4	6.90E-6	-7.48E-4	2.39E-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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