

Environmental Profile

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

Ecochain v3.5.80



Product: 3011403 - PP Corr. Shaft Pipe BR DN425 S/PL L=6
Unit: 1 piece
Manufacturer: Wavin - PL -Buk - Extra products

LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified: Yes
Issue date: 08-06-2023
End of validity: 08-06-2028
Verifier: Martijn van Hövell - 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 - PL -Buk - Extra products (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 EN15804+A2 Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF EN15804+A2 Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF EN15804+A2 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	7.59E+1	5.36E+0	1.45E-4	8.12E+1	1.21E+0	6.41E+1	5.73E-1	-5.73E+1	8.99E+1
GWP-f	kg CO2 eq	1.02E+2	5.36E+0	1.46E-4	1.07E+2	1.21E+0	3.74E+1	5.73E-1	-5.71E+1	8.96E+1
GWP-b	kg CO2 eq	-2.62E+1	3.25E-3	-1.54E-6	-2.62E+1	7.34E-4	2.67E+1	5.00E-4	-1.96E-1	3.11E-1
GWP-luluc	kg CO2 eq	4.30E-2	1.90E-3	1.49E-7	4.49E-2	4.28E-4	6.82E-3	9.75E-6	-1.49E-2	3.72E-2
ODP	kg CFC11 eq	3.15E-6	1.23E-6	8.26E-12	4.39E-6	2.79E-7	9.16E-7	1.44E-8	-2.50E-6	3.09E-6
AP	mol H+ eq	3.85E-1	3.05E-2	1.47E-6	4.15E-1	6.88E-3	3.98E-2	3.43E-4	-1.70E-1	2.92E-1
EP-fw	kg P eq	1.71E-3	4.41E-5	8.24E-9	1.75E-3	9.95E-6	1.98E-4	4.47E-7	-6.70E-4	1.29E-3
EP-m	kg N eq	6.72E-2	1.09E-2	1.55E-7	7.81E-2	2.46E-3	1.20E-2	2.30E-4	-3.15E-2	6.13E-2
EP-T	mol N eq	7.68E-1	1.20E-1	1.85E-6	8.88E-1	2.71E-2	1.32E-1	1.39E-3	-3.66E-1	6.83E-1
POCP	kg NMVOC eq	3.30E-1	3.44E-2	6.28E-7	3.64E-1	7.76E-3	4.12E-2	5.23E-4	-1.52E-1	2.61E-1
ADP-mm	kg Sb eq	2.16E-3	1.39E-4	1.97E-8	2.30E-3	3.13E-5	1.50E-4	3.46E-7	-4.07E-4	2.08E-3
ADP-f	MJ	3.45E+3	8.22E+1	1.36E-3	3.53E+3	1.86E+1	1.20E+2	1.05E+0	-1.78E+3	1.90E+3
WDP	m3 depriv.	6.85E+1	2.52E-1	5.22E-5	6.87E+1	5.69E-2	2.34E+0	5.22E-3	-3.10E+1	4.01E+1
PM	disease inc.	4.49E-6	4.84E-7	9.08E-12	4.97E-6	1.09E-7	6.36E-7	7.22E-9	-1.52E-6	4.20E-6
IR	kBq U-235 eq	2.21E+0	3.59E-1	1.02E-6	2.57E+0	8.11E-2	3.64E-1	4.88E-3	-8.70E-1	2.15E+0
ETP-fw	CTUe	7.50E+2	6.68E+1	1.21E-2	8.17E+2	1.51E+1	1.38E+2	8.99E-1	-3.34E+2	6.37E+2
HTP-c	CTUh	3.69E-8	2.38E-9	6.17E-13	3.93E-8	5.36E-10	1.78E-8	2.56E-11	-1.12E-8	4.65E-8
HTP-nc	CTUh	8.29E-7	7.96E-8	1.57E-11	9.08E-7	1.80E-8	2.06E-7	5.70E-10	-3.18E-7	8.15E-7
SQP	Pt	2.58E+3	7.04E+1	2.24E-3	2.65E+3	1.59E+1	9.55E+1	2.70E+0	-5.68E+2	2.20E+3
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.61E+2	1.18E+0	2.40E-2	5.62E+2	2.66E-1	5.86E+0	4.08E-2	-1.27E+2	4.41E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.61E+2	1.18E+0	2.40E-2	5.62E+2	2.66E-1	5.86E+0	4.08E-2	-1.27E+2	4.41E+2
PENRE	MJ	3.70E+3	8.73E+1	1.44E-3	3.79E+3	1.97E+1	1.28E+2	1.11E+0	-1.91E+3	2.02E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.70E+3	8.73E+1	1.44E-3	3.79E+3	1.97E+1	1.28E+2	1.11E+0	-1.91E+3	2.02E+3
PET	MJ	4.26E+3	8.85E+1	2.55E-2	4.35E+3	2.00E+1	1.34E+2	1.16E+0	-2.04E+3	2.46E+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	1.08E+0	9.31E-3	1.46E-6	1.09E+0	2.10E-3	7.33E-2	1.30E-3	-4.64E-1	7.01E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.99E-4	2.10E-4	2.73E-13	9.09E-4	4.74E-5	1.98E-4	1.27E-6	-4.51E-4	7.05E-4
NHWD	kg	5.12E+0	5.10E+0	1.05E-6	1.02E+1	1.15E+0	6.34E+0	4.63E+0	-1.61E+0	2.07E+1
RWD	kg	2.10E-3	5.59E-4	1.10E-13	2.66E-3	1.26E-4	4.63E-4	6.86E-6	-7.97E-4	2.46E-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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