

Environmental Profile

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

Ecochain v3.5.80



Product: 3011404 - PP Corr. Shaft Pipe BR DN425 S/PL L=3
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	3.96E+1	2.78E+0	1.45E-4	4.23E+1	6.63E-1	3.91E+1	3.16E-1	-3.16E+1	5.08E+1
GWP-f	kg CO2 eq	5.71E+1	2.78E+0	1.46E-4	5.99E+1	6.62E-1	2.13E+1	3.16E-1	-3.15E+1	5.06E+1
GWP-b	kg CO2 eq	-1.76E+1	1.69E-3	-1.54E-6	-1.76E+1	4.02E-4	1.78E+1	2.76E-4	-1.06E-1	1.54E-1
GWP-luluc	kg CO2 eq	2.61E-2	9.83E-4	1.49E-7	2.71E-2	2.34E-4	3.73E-3	5.37E-6	-8.60E-3	2.24E-2
ODP	kg CFC11 eq	2.00E-6	6.40E-7	8.26E-12	2.64E-6	1.53E-7	5.05E-7	7.93E-9	-1.41E-6	1.89E-6
AP	mol H+ eq	2.18E-1	1.58E-2	1.47E-6	2.34E-1	3.77E-3	2.22E-2	1.89E-4	-9.44E-2	1.66E-1
EP-fw	kg P eq	9.88E-4	2.29E-5	8.24E-9	1.01E-3	5.45E-6	1.08E-4	2.46E-7	-3.71E-4	7.54E-4
EP-m	kg N eq	3.85E-2	5.66E-3	1.55E-7	4.41E-2	1.35E-3	6.74E-3	1.30E-4	-1.77E-2	3.47E-2
EP-T	mol N eq	4.40E-1	6.24E-2	1.85E-6	5.03E-1	1.49E-2	7.43E-2	7.68E-4	-2.07E-1	3.86E-1
POCP	kg NMVOC eq	1.87E-1	1.78E-2	6.28E-7	2.05E-1	4.25E-3	2.30E-2	2.88E-4	-8.46E-2	1.48E-1
ADP-mm	kg Sb eq	1.49E-3	7.19E-5	1.97E-8	1.56E-3	1.71E-5	8.21E-5	1.90E-7	-2.33E-4	1.43E-3
ADP-f	MJ	1.91E+3	4.26E+1	1.36E-3	1.96E+3	1.02E+1	6.57E+1	5.79E-1	-9.74E+2	1.06E+3
WDP	m3 depriv.	3.81E+1	1.31E-1	5.22E-5	3.83E+1	3.12E-2	1.29E+0	2.86E-3	-1.69E+1	2.27E+1
PM	disease inc.	2.67E-6	2.51E-7	9.08E-12	2.92E-6	5.98E-8	3.50E-7	3.98E-9	-8.58E-7	2.48E-6
IR	kBq U-235 eq	1.32E+0	1.86E-1	1.02E-6	1.50E+0	4.44E-2	2.00E-1	2.69E-3	-4.81E-1	1.27E+0
ETP-fw	CTUe	4.42E+2	3.46E+1	1.21E-2	4.76E+2	8.25E+0	7.70E+1	5.04E-1	-1.96E+2	3.66E+2
HTP-c	CTUh	2.17E-8	1.23E-9	6.17E-13	2.29E-8	2.94E-10	9.96E-9	1.41E-11	-6.33E-9	2.68E-8
HTP-nc	CTUh	4.73E-7	4.13E-8	1.57E-11	5.14E-7	9.84E-9	1.14E-7	3.16E-10	-1.79E-7	4.59E-7
SQP	Pt	1.71E+3	3.65E+1	2.24E-3	1.75E+3	8.69E+0	5.24E+1	1.49E+0	-3.73E+2	1.43E+3
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.46E+2	6.12E-1	2.40E-2	3.47E+2	1.46E-1	3.21E+0	2.26E-2	-8.19E+1	2.68E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.46E+2	6.12E-1	2.40E-2	3.47E+2	1.46E-1	3.21E+0	2.26E-2	-8.19E+1	2.68E+2
PENRE	MJ	2.05E+3	4.53E+1	1.44E-3	2.10E+3	1.08E+1	7.00E+1	6.14E-1	-1.05E+3	1.13E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.05E+3	4.53E+1	1.44E-3	2.10E+3	1.08E+1	7.00E+1	6.14E-1	-1.05E+3	1.13E+3
PET	MJ	2.40E+3	4.59E+1	2.55E-2	2.45E+3	1.09E+1	7.32E+1	6.37E-1	-1.13E+3	1.40E+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	6.10E-1	4.82E-3	1.46E-6	6.15E-1	1.15E-3	4.14E-2	7.14E-4	-2.54E-1	4.05E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.21E-4	1.09E-4	2.73E-13	5.30E-4	2.60E-5	1.09E-4	6.97E-7	-2.55E-4	4.10E-4
NHWD	kg	3.01E+0	2.64E+0	1.05E-6	5.65E+0	6.30E-1	3.55E+0	2.55E+0	-9.07E-1	1.15E+1
RWD	kg	1.29E-3	2.90E-4	1.10E-13	1.58E-3	6.91E-5	2.54E-4	3.78E-6	-4.44E-4	1.46E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777