

Environmental Profile

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

Ecochain v4.3.1



Product: 10088 - TUBO SOLD PP 25X3M
Unit: 1 piece
Manufacturer: Wavin - BR - Ribeiro das Neves

LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.8 Cut-Off
Externally verified: No
Export date: 03-02-2025

The LCA background information and project dossier have been registered in the online Ecochain application in the account Wavin - BR - Ribeiro das Neves (2022). (☑ = 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	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]; **PENRT** = 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	A5	C4	Total
GWP-total	kg CO2 eq	1.258E+0	4.852E-2	1.266E-2	1.320E+0	4.090E-4	6.414E-2	1.384E+0
GWP-f	kg CO2 eq	1.252E+0	4.805E-2	1.112E-2	1.311E+0	4.090E-4	6.421E-2	1.376E+0
GWP-b	kg CO2 eq	5.324E-3	1.341E-4	1.529E-3	6.988E-3	3.596E-7	2.736E-6	6.991E-3
GWP-luluc	kg CO2 eq	1.054E-3	3.398E-4	1.064E-5	1.405E-3	4.576E-8	7.210E-7	1.405E-3
ODP	kg CFC11 eq	5.483E-7	1.018E-8	8.341E-10	5.593E-7	1.605E-11	6.586E-10	5.600E-7
AP	mol H+ eq	5.799E-3	2.649E-4	8.099E-5	6.145E-3	4.326E-7	2.809E-5	6.174E-3
EP-fw	kg P eq	4.228E-5	5.570E-7	5.403E-7	4.338E-5	7.763E-10	1.341E-8	4.340E-5
EP-m	kg N eq	1.034E-3	9.392E-5	1.818E-5	1.146E-3	2.110E-7	1.556E-5	1.162E-3
EP-T	mol N eq	1.101E-2	1.019E-3	1.565E-4	1.219E-2	1.622E-6	1.270E-4	1.232E-2
POCP	kg NMVOC eq	3.609E-3	2.944E-4	4.940E-5	3.953E-3	5.486E-7	5.118E-5	4.004E-3
ADP-mm	kg Sb eq	2.587E-5	1.639E-7	9.777E-7	2.701E-5	2.028E-10	2.444E-9	2.701E-5
ADP-f	MJ	2.629E+1	7.228E-1	1.191E-1	2.713E+1	1.185E-3	4.359E-2	2.718E+1
WDP	m3 depriv.	6.660E-1	2.841E-3	5.096E-3	6.739E-1	3.405E-5	6.701E-4	6.746E-1
PM	disease inc.	5.146E-8	5.227E-9	1.090E-9	5.778E-8	8.466E-12	6.976E-10	5.849E-8
IR	kBq U-235 eq	3.005E-2	3.026E-3	3.066E-4	3.339E-2	4.722E-6	1.827E-4	3.357E-2
ETP-fw	CTUe	2.847E+1	6.431E-1	5.407E-1	2.965E+1	1.130E-3	9.279E-1	3.058E+1
HTP-c	CTUh	8.353E-10	2.313E-11	4.630E-11	9.048E-10	3.768E-14	1.366E-12	9.062E-10
HTP-nc	CTUh	2.219E-8	6.791E-10	6.804E-10	2.355E-8	8.517E-13	1.954E-10	2.374E-8
SQP	Pt	3.198E+0	6.513E-1	1.459E-1	3.995E+0	2.145E-3	1.529E-1	4.150E+0
Resource use	Unit	A1	A2	A3	A1-A3	A5	C4	Total
PERE	MJ	9.502E-1	1.244E-2	8.484E-1	1.811E+0	1.883E-5	3.154E-4	1.811E+0
PERM	MJ	0	0	0	0	0	0	0
PERT	MJ	9.502E-1	1.244E-2	8.484E-1	1.811E+0	1.883E-5	3.154E-4	1.811E+0
PENRE	MJ	2.825E+1	7.698E-1	1.273E-1	2.914E+1	1.260E-3	4.630E-2	2.919E+1
PENRM	MJ	0	0	0	0	0	0	0
PENRT	MJ	2.825E+1	7.698E-1	1.273E-1	2.914E+1	1.260E-3	4.630E-2	2.919E+1
PET	MJ	2.920E+1	7.823E-1	6.027E-2	3.004E+1	1.278E-3	4.662E-2	3.009E+1
SM	kg	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0
FW	m3	1.700E-2	9.638E-5	1.363E-4	1.723E-2	8.415E-7	1.661E-5	1.725E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	A5	C4	Total
HWD	kg	4.758E-5	1.888E-6	7.214E-7	5.019E-5	2.266E-9	1.024E-7	5.030E-5
NHWD	kg	1.291E-1	5.007E-2	9.206E-3	1.884E-1	3.036E-3	8.605E-2	2.775E-1
RWD	kg	2.563E-5	4.758E-6	3.596E-7	3.075E-5	7.279E-9	2.940E-7	3.105E-5
CRU	kg	0	0	0	0	0	0	0
MFR	kg	0	0	0	0	0	0	0
MER	kg	0	0	0	0	0	0	0
EE	MJ	0	0	0	0	0	0	0
EET	MJ	0	0	0	0	0	0	0
EEE	MJ	0	0	0	0	0	0	0



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