

Environmental Profile

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

Ecochain v4.3.1



Product: 10461 - TUBO SOLD PB 50X6M
Unit: 1 piece
Manufacturer: Wavin - BR - Ribeirao 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 - Ribeirao 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	8.892E+0	3.431E-1	8.869E-2	9.324E+0	4.090E-4	4.559E-1	9.780E+0
GWP-f	kg CO2 eq	8.848E+0	3.398E-1	7.782E-2	9.265E+0	4.090E-4	4.564E-1	9.722E+0
GWP-b	kg CO2 eq	3.886E-2	9.486E-4	1.080E-2	5.060E-2	3.596E-7	1.950E-5	5.062E-2
GWP-luluc	kg CO2 eq	7.451E-3	2.403E-3	7.427E-5	9.928E-3	4.576E-8	5.117E-6	9.933E-3
ODP	kg CFC11 eq	3.896E-6	7.197E-8	5.852E-9	3.974E-6	1.605E-11	4.677E-9	3.979E-6
AP	mol H+ eq	4.101E-2	1.873E-3	5.655E-4	4.344E-2	4.326E-7	1.996E-4	4.364E-2
EP-fw	kg P eq	2.991E-4	3.939E-6	3.779E-6	3.068E-4	7.763E-10	9.523E-8	3.069E-4
EP-m	kg N eq	7.306E-3	6.642E-4	1.276E-4	8.097E-3	2.110E-7	1.105E-4	8.208E-3
EP-T	mol N eq	7.781E-2	7.205E-3	1.097E-3	8.611E-2	1.622E-6	9.024E-4	8.702E-2
POCP	kg NMVOC eq	2.547E-2	2.082E-3	3.459E-4	2.790E-2	5.486E-7	3.636E-4	2.827E-2
ADP-mm	kg Sb eq	1.826E-4	1.159E-6	6.800E-6	1.905E-4	2.028E-10	1.736E-8	1.905E-4
ADP-f	MJ	1.853E+2	5.111E+0	8.342E-1	1.912E+2	1.185E-3	3.095E-1	1.916E+2
WDP	m3 depriv.	4.701E+0	2.009E-2	3.572E-2	4.757E+0	3.405E-5	4.750E-3	4.762E+0
PM	disease inc.	3.637E-7	3.696E-8	7.636E-9	4.083E-7	8.466E-12	4.957E-9	4.133E-7
IR	kBq U-235 eq	2.124E-1	2.140E-2	2.147E-3	2.359E-1	4.722E-6	1.297E-3	2.372E-1
ETP-fw	CTUe	2.014E+2	4.548E+0	3.773E+0	2.097E+2	1.130E-3	6.595E+0	2.163E+2
HTP-c	CTUh	5.911E-9	1.636E-10	3.226E-10	6.397E-9	3.768E-14	9.710E-12	6.407E-9
HTP-nc	CTUh	1.571E-7	4.802E-9	4.738E-9	1.667E-7	8.517E-13	1.389E-9	1.680E-7
SQP	Pt	2.252E+1	4.605E+0	1.017E+0	2.814E+1	2.145E-3	1.086E+0	2.923E+1
Resource use	Unit	A1	A2	A3	A1-A3	A5	C4	Total
PERE	MJ	6.700E+0	8.800E-2	5.899E+0	1.269E+1	1.883E-5	2.241E-3	1.269E+1
PERM	MJ	0	0	0	0	0	0	0
PERT	MJ	6.700E+0	8.800E-2	5.899E+0	1.269E+1	1.883E-5	2.241E-3	1.269E+1
PENRE	MJ	1.991E+2	5.444E+0	8.918E-1	2.054E+2	1.260E-3	3.288E-1	2.057E+2
PENRM	MJ	0	0	0	0	0	0	0
PENRT	MJ	1.991E+2	5.444E+0	8.918E-1	2.054E+2	1.260E-3	3.288E-1	2.057E+2
PET	MJ	2.058E+2	5.532E+0	4.258E-1	2.117E+2	1.278E-3	3.310E-1	2.121E+2
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	1.201E-1	6.815E-4	9.553E-4	1.217E-1	8.415E-7	1.177E-4	1.218E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	A5	C4	Total
HWD	kg	3.318E-4	1.335E-5	5.028E-6	3.501E-4	2.266E-9	7.272E-7	3.509E-4
NHWD	kg	9.141E-1	3.541E-1	6.430E-2	1.332E+0	3.036E-3	6.094E-1	1.945E+0
RWD	kg	1.812E-4	3.365E-5	2.521E-6	2.174E-4	7.279E-9	2.088E-6	2.195E-4
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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