

Environmental Profile

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

Ecochain v4.3.1



Product: 10458 - TUBO SOLD PB 25X6M
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	2.505E+0	9.662E-2	2.375E-2	2.626E+0	2.727E-4	1.283E-1	2.754E+0
GWP-f	kg CO2 eq	2.493E+0	9.568E-2	2.069E-2	2.609E+0	2.727E-4	1.284E-1	2.738E+0
GWP-b	kg CO2 eq	1.085E-2	2.671E-4	3.038E-3	1.416E-2	2.397E-7	5.466E-6	1.416E-2
GWP-luluc	kg CO2 eq	2.098E-3	6.766E-4	1.947E-5	2.794E-3	3.051E-8	1.437E-6	2.796E-3
ODP	kg CFC11 eq	1.096E-6	2.027E-8	1.582E-9	1.118E-6	1.070E-11	1.315E-9	1.120E-6
AP	mol H+ eq	1.155E-2	5.274E-4	1.483E-4	1.223E-2	2.884E-7	5.613E-5	1.228E-2
EP-fw	kg P eq	8.422E-5	1.109E-6	1.002E-6	8.633E-5	5.175E-10	2.676E-8	8.636E-5
EP-m	kg N eq	2.058E-3	1.870E-4	3.469E-5	2.279E-3	1.407E-7	3.110E-5	2.311E-3
EP-T	mol N eq	2.192E-2	2.029E-3	2.947E-4	2.424E-2	1.081E-6	2.538E-4	2.449E-2
POCP	kg NMVOC eq	7.176E-3	5.862E-4	9.244E-5	7.855E-3	3.657E-7	1.023E-4	7.958E-3
ADP-mm	kg Sb eq	5.123E-5	3.263E-7	1.738E-6	5.329E-5	1.352E-10	4.876E-9	5.330E-5
ADP-f	MJ	5.223E+1	1.439E+0	2.232E-1	5.389E+1	7.902E-4	8.703E-2	5.398E+1
WDP	m3 depriv.	1.325E+0	5.658E-3	9.604E-3	1.340E+0	2.270E-5	1.334E-3	1.341E+0
PM	disease inc.	1.025E-7	1.041E-8	2.049E-9	1.149E-7	5.644E-12	1.394E-9	1.163E-7
IR	kBq U-235 eq	5.981E-2	6.026E-3	5.732E-4	6.641E-2	3.148E-6	3.647E-4	6.677E-2
ETP-fw	CTUe	5.664E+1	1.281E+0	9.861E-1	5.890E+1	7.531E-4	1.856E+0	6.076E+1
HTP-c	CTUh	1.663E-9	4.606E-11	8.349E-11	1.792E-9	2.512E-14	2.729E-12	1.795E-9
HTP-nc	CTUh	4.419E-8	1.352E-9	1.221E-9	4.677E-8	5.678E-13	3.908E-10	4.716E-8
SQP	Pt	6.347E+0	1.297E+0	2.644E-1	7.909E+0	1.430E-3	3.054E-1	8.216E+0
Resource use	Unit	A1	A2	A3	A1-A3	A5	C4	Total
PERE	MJ	1.888E+0	2.478E-2	1.505E+0	3.418E+0	1.255E-5	6.295E-4	3.418E+0
PERM	MJ	0	0	0	0	0	0	0
PERT	MJ	1.888E+0	2.478E-2	1.505E+0	3.418E+0	1.255E-5	6.295E-4	3.418E+0
PENRE	MJ	5.611E+1	1.533E+0	2.386E-1	5.788E+1	8.397E-4	9.244E-2	5.798E+1
PENRM	MJ	0	0	0	0	0	0	0
PENRT	MJ	5.611E+1	1.533E+0	2.386E-1	5.788E+1	8.397E-4	9.244E-2	5.798E+1
PET	MJ	5.800E+1	1.558E+0	1.201E-1	5.968E+1	8.522E-4	9.307E-2	5.977E+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	3.382E-2	1.919E-4	2.565E-4	3.427E-2	5.610E-7	3.306E-5	3.431E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	A5	C4	Total
HWD	kg	9.240E-5	3.760E-6	1.304E-6	9.746E-5	1.511E-9	2.045E-7	9.767E-5
NHWD	kg	2.575E-1	9.971E-2	1.691E-2	3.741E-1	2.024E-3	1.711E-1	5.472E-1
RWD	kg	5.103E-5	9.475E-6	6.780E-7	6.118E-5	4.853E-9	5.871E-7	6.177E-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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