

Environmental Profile

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

Ecochain v4.3.1



Product: 16680 - TUBO SOLD PB DN75X6M PL
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	1.873E+1	7.228E-1	1.923E-1	1.964E+1	0	9.611E-1	2.061E+1
GWP-f	kg CO2 eq	1.863E+1	7.158E-1	1.691E-1	1.952E+1	0	9.622E-1	2.048E+1
GWP-b	kg CO2 eq	8.226E-2	1.998E-3	2.305E-2	1.073E-1	0	4.087E-5	1.074E-1
GWP-luluc	kg CO2 eq	1.569E-2	5.062E-3	1.621E-4	2.092E-2	0	1.077E-5	2.093E-2
ODP	kg CFC11 eq	8.215E-6	1.516E-7	1.265E-8	8.379E-6	0	9.855E-9	8.389E-6
AP	mol H+ eq	8.636E-2	3.946E-3	1.234E-3	9.154E-2	0	4.206E-4	9.196E-2
EP-fw	kg P eq	6.301E-4	8.298E-6	8.221E-6	6.466E-4	0	2.004E-7	6.468E-4
EP-m	kg N eq	1.539E-2	1.399E-3	2.756E-4	1.706E-2	0	2.330E-4	1.729E-2
EP-T	mol N eq	1.639E-1	1.518E-2	2.377E-3	1.814E-1	0	1.902E-3	1.833E-1
POCP	kg NMVOC eq	5.364E-2	4.385E-3	7.507E-4	5.878E-2	0	7.666E-4	5.955E-2
ADP-mm	kg Sb eq	3.843E-4	2.441E-6	1.495E-5	4.017E-4	0	3.653E-8	4.017E-4
ADP-f	MJ	3.902E+2	1.077E+1	1.810E+0	4.027E+2	0	6.522E-1	4.034E+2
WDP	m3 depriv.	9.899E+0	4.232E-2	7.737E-2	1.002E+1	0	9.993E-3	1.003E+1
PM	disease inc.	7.659E-7	7.786E-8	1.655E-8	8.603E-7	0	1.045E-8	8.708E-7
IR	kBq U-235 eq	4.473E-1	4.508E-2	4.660E-3	4.971E-1	0	2.733E-3	4.998E-1
ETP-fw	CTUe	4.241E+2	9.580E+0	8.243E+0	4.419E+2	0	1.391E+1	4.559E+2
HTP-c	CTUh	1.245E-8	3.446E-10	7.070E-10	1.350E-8	0	2.045E-11	1.352E-8
HTP-nc	CTUh	3.309E-7	1.012E-8	1.039E-8	3.515E-7	0	2.928E-9	3.544E-7
SQP	Pt	4.738E+1	9.702E+0	2.226E+0	5.931E+1	0	2.289E+0	6.160E+1
Resource use	Unit	A1	A2	A3	A1-A3	A5	C4	Total
PERE	MJ	1.411E+1	1.854E-1	1.298E+1	2.727E+1	0	4.716E-3	2.728E+1
PERM	MJ	0	0	0	0	0	0	0
PERT	MJ	1.411E+1	1.854E-1	1.298E+1	2.727E+1	0	4.716E-3	2.728E+1
PENRE	MJ	4.192E+2	1.147E+1	1.935E+0	4.326E+2	0	6.928E-1	4.333E+2
PENRM	MJ	0	0	0	0	0	0	0
PENRT	MJ	4.192E+2	1.147E+1	1.935E+0	4.326E+2	0	6.928E-1	4.333E+2
PET	MJ	4.333E+2	1.165E+1	9.082E-1	4.458E+2	0	6.975E-1	4.465E+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	2.528E-1	1.436E-3	2.070E-3	2.563E-1	0	2.477E-4	2.566E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	A5	C4	Total
HWD	kg	6.966E-4	2.813E-5	1.101E-5	7.357E-4	0	1.533E-6	7.372E-4
NHWD	kg	1.925E+0	7.459E-1	1.402E-1	2.811E+0	0	1.283E+0	4.094E+0
RWD	kg	3.816E-4	7.089E-5	5.459E-6	4.580E-4	0	4.400E-6	4.624E-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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