

Environmental Profile

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

Ecochain v4.3.1



Product: 16681 - TUBO SOLD PB DN85X6M PL
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	2.377E+1	9.172E-1	2.442E-1	2.493E+1	0	1.220E+0	2.615E+1
GWP-f	kg CO2 eq	2.365E+1	9.083E-1	2.145E-1	2.477E+1	0	1.221E+0	2.599E+1
GWP-b	kg CO2 eq	1.044E-1	2.536E-3	2.954E-2	1.365E-1	0	5.196E-5	1.365E-1
GWP-luluc	kg CO2 eq	1.991E-2	6.423E-3	2.051E-4	2.654E-2	0	1.367E-5	2.656E-2
ODP	kg CFC11 eq	1.042E-5	1.924E-7	1.609E-8	1.063E-5	0	1.251E-8	1.064E-5
AP	mol H+ eq	1.096E-1	5.007E-3	1.562E-3	1.162E-1	0	5.338E-4	1.167E-1
EP-fw	kg P eq	7.995E-4	1.053E-5	1.042E-5	8.205E-4	0	2.545E-7	8.207E-4
EP-m	kg N eq	1.952E-2	1.776E-3	3.508E-4	2.165E-2	0	2.957E-4	2.195E-2
EP-T	mol N eq	2.079E-1	1.926E-2	3.020E-3	2.302E-1	0	2.414E-3	2.326E-1
POCP	kg NMVOC eq	6.807E-2	5.565E-3	9.529E-4	7.459E-2	0	9.728E-4	7.556E-2
ADP-mm	kg Sb eq	4.878E-4	3.097E-6	1.884E-5	5.097E-4	0	4.638E-8	5.097E-4
ADP-f	MJ	4.951E+2	1.366E+1	2.298E+0	5.110E+2	0	8.278E-1	5.119E+2
WDP	m3 depriv.	1.256E+1	5.371E-2	9.832E-2	1.271E+1	0	1.269E-2	1.273E+1
PM	disease inc.	9.719E-7	9.881E-8	2.102E-8	1.092E-6	0	1.326E-8	1.105E-6
IR	kBq U-235 eq	5.676E-1	5.721E-2	5.914E-3	6.307E-1	0	3.469E-3	6.342E-1
ETP-fw	CTUe	5.382E+2	1.216E+1	1.042E+1	5.608E+2	0	1.765E+1	5.785E+2
HTP-c	CTUh	1.580E-8	4.372E-10	8.925E-10	1.713E-8	0	2.596E-11	1.715E-8
HTP-nc	CTUh	4.200E-7	1.284E-8	1.311E-8	4.459E-7	0	3.715E-9	4.497E-7
SQP	Pt	6.013E+1	1.231E+1	2.812E+0	7.526E+1	0	2.905E+0	7.816E+1
Resource use	Unit	A1	A2	A3	A1-A3	A5	C4	Total
PERE	MJ	1.790E+1	2.352E-1	1.635E+1	3.448E+1	0	5.988E-3	3.449E+1
PERM	MJ	0	0	0	0	0	0	0
PERT	MJ	1.790E+1	2.352E-1	1.635E+1	3.448E+1	0	5.988E-3	3.449E+1
PENRE	MJ	5.319E+2	1.455E+1	2.456E+0	5.489E+2	0	8.793E-1	5.498E+2
PENRM	MJ	0	0	0	0	0	0	0
PENRT	MJ	5.319E+2	1.455E+1	2.456E+0	5.489E+2	0	8.793E-1	5.498E+2
PET	MJ	5.498E+2	1.479E+1	1.164E+0	5.657E+2	0	8.853E-1	5.666E+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	3.208E-1	1.822E-3	2.630E-3	3.253E-1	0	3.146E-4	3.256E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	A5	C4	Total
HWD	kg	8.845E-4	3.570E-5	1.391E-5	9.341E-4	0	1.945E-6	9.360E-4
NHWD	kg	2.443E+0	9.466E-1	1.775E-1	3.567E+0	0	1.629E+0	5.196E+0
RWD	kg	4.842E-4	8.995E-5	6.938E-6	5.811E-4	0	5.584E-6	5.867E-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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