

Environmental Profile

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

Ecochain v4.3.1



Product: 10471 - TUBO ESG SN DN75X6M
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	7.738E+0	3.090E-1	8.342E-2	8.130E+0	5.453E-4	3.945E-1	8.525E+0
GWP-f	kg CO2 eq	7.698E+0	3.060E-1	7.360E-2	8.078E+0	5.453E-4	3.949E-1	8.473E+0
GWP-b	kg CO2 eq	3.452E-2	8.543E-4	9.761E-3	4.514E-2	4.795E-7	1.799E-5	4.516E-2
GWP-luluc	kg CO2 eq	6.471E-3	2.164E-3	7.099E-5	8.706E-3	6.102E-8	5.185E-6	8.712E-3
ODP	kg CFC11 eq	3.365E-6	6.481E-8	5.463E-9	3.435E-6	2.140E-11	4.361E-9	3.440E-6
AP	mol H+ eq	3.630E-2	1.687E-3	5.403E-4	3.852E-2	5.768E-7	1.798E-4	3.870E-2
EP-fw	kg P eq	2.608E-4	3.547E-6	3.581E-6	2.679E-4	1.035E-9	9.083E-8	2.680E-4
EP-m	kg N eq	6.389E-3	5.981E-4	1.187E-4	7.106E-3	2.814E-7	9.801E-5	7.204E-3
EP-T	mol N eq	6.794E-2	6.488E-3	1.029E-3	7.546E-2	2.163E-6	8.076E-4	7.627E-2
POCP	kg NMVOC eq	2.224E-2	1.875E-3	3.259E-4	2.444E-2	7.315E-7	3.222E-4	2.476E-2
ADP-mm	kg Sb eq	1.606E-4	1.043E-6	6.620E-6	1.683E-4	2.703E-10	1.686E-8	1.683E-4
ADP-f	MJ	1.606E+2	4.603E+0	7.853E-1	1.660E+2	1.580E-3	2.896E-1	1.663E+2
WDP	m3 depriv.	4.132E+0	1.809E-2	3.349E-2	4.184E+0	4.541E-5	5.113E-3	4.189E+0
PM	disease inc.	3.213E-7	3.328E-8	7.172E-9	3.618E-7	1.129E-11	4.430E-9	3.662E-7
IR	kBq U-235 eq	1.847E-1	1.927E-2	2.023E-3	2.060E-1	6.296E-6	1.211E-3	2.072E-1
ETP-fw	CTUe	1.775E+2	4.095E+0	3.615E+0	1.852E+2	1.506E-3	5.705E+0	1.909E+2
HTP-c	CTUh	5.351E-9	1.473E-10	3.113E-10	5.810E-9	5.024E-14	8.768E-12	5.819E-9
HTP-nc	CTUh	1.376E-7	4.325E-9	4.586E-9	1.465E-7	1.136E-12	1.208E-9	1.477E-7
SQP	Pt	2.030E+1	4.147E+0	9.783E-1	2.542E+1	2.860E-3	9.845E-1	2.641E+1
Resource use	Unit	A1	A2	A3	A1-A3	A5	C4	Total
PERE	MJ	5.855E+0	7.925E-2	5.751E+0	1.169E+1	2.511E-5	2.132E-3	1.169E+1
PERM	MJ	0	0	0	0	0	0	0
PERT	MJ	5.855E+0	7.925E-2	5.751E+0	1.169E+1	2.511E-5	2.132E-3	1.169E+1
PENRE	MJ	1.725E+2	4.902E+0	8.393E-1	1.783E+2	1.679E-3	3.077E-1	1.786E+2
PENRM	MJ	0	0	0	0	0	0	0
PENRT	MJ	1.725E+2	4.902E+0	8.393E-1	1.783E+2	1.679E-3	3.077E-1	1.786E+2
PET	MJ	1.784E+2	4.982E+0	3.840E-1	1.837E+2	1.704E-3	3.098E-1	1.841E+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	1.054E-1	6.138E-4	8.966E-4	1.069E-1	1.122E-6	1.258E-4	1.071E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	A5	C4	Total
HWD	kg	2.866E-4	1.203E-5	4.845E-6	3.034E-4	3.021E-9	6.615E-7	3.041E-4
NHWD	kg	8.491E-1	3.189E-1	6.132E-2	1.229E+0	4.048E-3	6.773E-1	1.911E+0
RWD	kg	1.580E-4	3.030E-5	2.363E-6	1.906E-4	9.706E-9	1.949E-6	1.926E-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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