

Environmental Profile

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

Ecochain v4.3.1



Product: 16701 - TUBO ESG SN DN100X6M 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]

Statement of Confidentiality

This document and supporting material contain confidential and proprietary business information of Wavin - BR - Ribeirao das Neves. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - BR - Ribeirao das Neves.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	A5	C4	Total
GWP-total	kg CO2 eq	1.112E+1	4.441E-1	1.128E-1	1.168E+1	2.727E-4	5.674E-1	1.224E+1
GWP-f	kg CO2 eq	1.106E+1	4.398E-1	9.879E-2	1.160E+1	2.727E-4	5.681E-1	1.217E+1
GWP-b	kg CO2 eq	4.986E-2	1.228E-3	1.389E-2	6.498E-2	2.397E-7	2.583E-5	6.500E-2
GWP-luluc	kg CO2 eq	9.301E-3	3.110E-3	9.397E-5	1.250E-2	3.051E-8	7.453E-6	1.251E-2
ODP	kg CFC11 eq	4.841E-6	9.316E-8	7.456E-9	4.941E-6	1.070E-11	6.272E-9	4.948E-6
AP	mol H+ eq	5.215E-2	2.424E-3	7.156E-4	5.529E-2	2.884E-7	2.586E-4	5.555E-2
EP-fw	kg P eq	3.748E-4	5.099E-6	4.794E-6	3.847E-4	5.175E-10	1.306E-7	3.848E-4
EP-m	kg N eq	9.182E-3	8.597E-4	1.628E-4	1.020E-2	1.407E-7	1.410E-4	1.035E-2
EP-T	mol N eq	9.763E-2	9.326E-3	1.396E-3	1.084E-1	1.081E-6	1.162E-3	1.095E-1
POCP	kg NMVOC eq	3.195E-2	2.695E-3	4.396E-4	3.509E-2	3.657E-7	4.635E-4	3.555E-2
ADP-mm	kg Sb eq	2.308E-4	1.500E-6	8.556E-6	2.409E-4	1.352E-10	2.423E-8	2.409E-4
ADP-f	MJ	2.307E+2	6.616E+0	1.060E+0	2.384E+2	7.902E-4	4.165E-1	2.388E+2
WDP	m3 depriv.	5.936E+0	2.601E-2	4.546E-2	6.008E+0	2.270E-5	7.348E-3	6.015E+0
PM	disease inc.	4.617E-7	4.784E-8	9.712E-9	5.192E-7	5.644E-12	6.372E-9	5.256E-7
IR	kBq U-235 eq	2.654E-1	2.770E-2	2.728E-3	2.958E-1	3.148E-6	1.742E-3	2.976E-1
ETP-fw	CTUe	2.551E+2	5.887E+0	4.771E+0	2.658E+2	7.531E-4	8.207E+0	2.740E+2
HTP-c	CTUh	7.688E-9	2.117E-10	4.070E-10	8.307E-9	2.512E-14	1.261E-11	8.319E-9
HTP-nc	CTUh	1.978E-7	6.216E-9	5.972E-9	2.100E-7	5.678E-13	1.737E-9	2.117E-7
SQP	Pt	2.914E+1	5.961E+0	1.285E+0	3.639E+1	1.430E-3	1.416E+0	3.781E+1
Resource use	Unit	A1	A2	A3	A1-A3	A5	C4	Total
PERE	MJ	8.411E+0	1.139E-1	7.418E+0	1.594E+1	1.255E-5	3.065E-3	1.595E+1
PERM	MJ	0	0	0	0	0	0	0
PERT	MJ	8.411E+0	1.139E-1	7.418E+0	1.594E+1	1.255E-5	3.065E-3	1.595E+1
PENRE	MJ	2.479E+2	7.047E+0	1.134E+0	2.560E+2	8.397E-4	4.424E-1	2.565E+2
PENRM	MJ	0	0	0	0	0	0	0
PENRT	MJ	2.479E+2	7.047E+0	1.134E+0	2.560E+2	8.397E-4	4.424E-1	2.565E+2
PET	MJ	2.563E+2	7.160E+0	5.480E-1	2.640E+2	8.522E-4	4.455E-1	2.644E+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	1.515E-1	8.822E-4	1.215E-3	1.536E-1	5.610E-7	1.807E-4	1.537E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	A5	C4	Total
HWD	kg	4.118E-4	1.729E-5	6.347E-6	4.354E-4	1.511E-9	9.515E-7	4.364E-4
NHWD	kg	1.219E+0	4.583E-1	8.142E-2	1.759E+0	2.024E-3	9.734E-1	2.734E+0
RWD	kg	2.270E-4	4.356E-5	3.208E-6	2.738E-4	4.853E-9	2.803E-6	2.766E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777