

Environmental Profile

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

Ecochain v4.3.1



Product: 11466 - TUBO SOLD PP 60X3M
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	6.143E+0	2.369E-1	7.665E-2	6.456E+0	9.543E-4	3.142E-1	6.772E+0
GWP-f	kg CO2 eq	6.112E+0	2.346E-1	6.922E-2	6.416E+0	9.543E-4	3.146E-1	6.732E+0
GWP-b	kg CO2 eq	2.648E-2	6.550E-4	7.374E-3	3.451E-2	8.391E-7	1.343E-5	3.453E-2
GWP-luluc	kg CO2 eq	5.146E-3	1.659E-3	6.980E-5	6.875E-3	1.068E-7	3.528E-6	6.878E-3
ODP	kg CFC11 eq	2.686E-6	4.970E-8	4.854E-9	2.740E-6	3.745E-11	3.224E-9	2.744E-6
AP	mol H+ eq	2.832E-2	1.293E-3	5.305E-4	3.015E-2	1.009E-6	1.375E-4	3.028E-2
EP-fw	kg P eq	2.065E-4	2.720E-6	3.397E-6	2.126E-4	1.811E-9	6.564E-8	2.127E-4
EP-m	kg N eq	5.046E-3	4.586E-4	1.035E-4	5.608E-3	4.924E-7	7.620E-5	5.685E-3
EP-T	mol N eq	5.375E-2	4.975E-3	9.358E-4	5.966E-2	3.785E-6	6.220E-4	6.028E-2
POCP	kg NMVOC eq	1.760E-2	1.437E-3	3.015E-4	1.934E-2	1.280E-6	2.506E-4	1.959E-2
ADP-mm	kg Sb eq	1.258E-4	8.001E-7	6.986E-6	1.336E-4	4.731E-10	1.196E-8	1.336E-4
ADP-f	MJ	1.281E+2	3.529E+0	7.240E-1	1.324E+2	2.766E-3	2.134E-1	1.326E+2
WDP	m3 depriv.	3.249E+0	1.387E-2	3.035E-2	3.293E+0	7.946E-5	3.275E-3	3.296E+0
PM	disease inc.	2.512E-7	2.552E-8	6.550E-9	2.833E-7	1.975E-11	3.417E-9	2.868E-7
IR	kBq U-235 eq	1.467E-1	1.478E-2	1.877E-3	1.633E-1	1.102E-5	8.942E-4	1.642E-1
ETP-fw	CTUe	1.389E+2	3.140E+0	3.586E+0	1.456E+2	2.636E-3	4.546E+0	1.502E+2
HTP-c	CTUh	4.078E-9	1.129E-10	3.178E-10	4.509E-9	8.792E-14	6.692E-12	4.516E-9
HTP-nc	CTUh	1.084E-7	3.316E-9	4.734E-9	1.164E-7	1.987E-12	9.572E-10	1.174E-7
SQP	Pt	1.558E+1	3.180E+0	9.857E-1	1.974E+1	5.005E-3	7.485E-1	2.050E+1
Resource use	Unit	A1	A2	A3	A1-A3	A5	C4	Total
PERE	MJ	4.632E+0	6.076E-2	6.100E+0	1.079E+1	4.394E-5	1.544E-3	1.079E+1
PERM	MJ	0	0	0	0	0	0	0
PERT	MJ	4.632E+0	6.076E-2	6.100E+0	1.079E+1	4.394E-5	1.544E-3	1.079E+1
PENRE	MJ	1.376E+2	3.759E+0	7.732E-1	1.422E+2	2.939E-3	2.266E-1	1.424E+2
PENRM	MJ	0	0	0	0	0	0	0
PENRT	MJ	1.376E+2	3.759E+0	7.732E-1	1.422E+2	2.939E-3	2.266E-1	1.424E+2
PET	MJ	1.423E+2	3.820E+0	2.862E-1	1.464E+2	2.983E-3	2.282E-1	1.466E+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	8.295E-2	4.706E-4	8.159E-4	8.424E-2	1.963E-6	8.118E-5	8.432E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	A5	C4	Total
HWD	kg	2.282E-4	9.221E-6	4.919E-6	2.423E-4	5.287E-9	5.012E-7	2.428E-4
NHWD	kg	6.311E-1	2.445E-1	5.970E-2	9.353E-1	7.084E-3	4.203E-1	1.363E+0
RWD	kg	1.251E-4	2.324E-5	2.139E-6	1.505E-4	1.699E-8	1.439E-6	1.520E-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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