

Environmental Profile

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

Ecochain v3.5.80



Product: 3001650 - KG PVC Plug DN125 BR EXP
Unit: 1 piece
Manufacturer: Wavin - PL -Buk - Extra products

LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified: Yes
Issue date: 08-06-2023
End of validity: 08-06-2028
Verifier: Martijn van Hövell - SGS Search



This LCA was evaluated according to EN15804+A2. It was concluded that the LCA complies with this standard

The LCA background information and project dossier have been registered in the online Ecochain application in the account Wavin - PL -Buk - Extra products (2020). (☑ = 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	☑	☑	☑	☑
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]; **PERT** = 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 - PL -Buk - Extra products. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - PL -Buk - Extra products.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.70E-1	5.08E-3	1.45E-4	3.75E-1	4.82E-3	2.27E-1	1.53E-3	-2.14E-1	3.93E-1
GWP-f	kg CO2 eq	4.32E-1	5.08E-3	1.46E-4	4.37E-1	4.81E-3	1.51E-1	1.53E-3	-2.34E-1	3.61E-1
GWP-b	kg CO2 eq	-6.24E-2	3.08E-6	-1.54E-6	-6.24E-2	2.92E-6	7.56E-2	1.93E-6	1.94E-2	3.26E-2
GWP-luluc	kg CO2 eq	4.96E-4	1.80E-6	1.49E-7	4.98E-4	1.70E-6	6.11E-5	4.03E-8	-3.10E-4	2.51E-4
ODP	kg CFC11 eq	2.11E-7	1.17E-9	8.26E-12	2.12E-7	1.11E-9	1.70E-8	5.70E-11	-1.07E-7	1.23E-7
AP	mol H+ eq	2.06E-3	2.89E-5	1.47E-6	2.09E-3	2.74E-5	2.92E-4	1.39E-6	-9.42E-4	1.47E-3
EP-fw	kg P eq	2.00E-5	4.18E-8	8.24E-9	2.00E-5	3.96E-8	2.05E-6	1.82E-9	-9.83E-6	1.23E-5
EP-m	kg N eq	3.74E-4	1.03E-5	1.55E-7	3.84E-4	9.81E-6	7.23E-5	8.59E-7	-1.75E-4	2.92E-4
EP-T	mol N eq	4.05E-3	1.14E-4	1.85E-6	4.16E-3	1.08E-4	7.97E-4	5.53E-6	-1.90E-3	3.17E-3
POCP	kg NMVOC eq	1.33E-3	3.26E-5	6.28E-7	1.36E-3	3.09E-5	2.38E-4	1.90E-6	-6.38E-4	9.93E-4
ADP-mm	kg Sb eq	3.48E-4	1.31E-7	1.97E-8	3.48E-4	1.25E-7	1.15E-6	1.39E-9	-4.51E-6	3.45E-4
ADP-f	MJ	1.04E+1	7.79E-2	1.36E-3	1.05E+1	7.39E-2	7.81E-1	4.17E-3	-5.48E+0	5.88E+0
WDP	m3 depriv.	6.47E-1	2.39E-4	5.22E-5	6.47E-1	2.27E-4	3.07E-2	2.75E-5	-3.30E-1	3.48E-1
PM	disease inc.	1.52E-8	4.58E-10	9.08E-12	1.57E-8	4.34E-10	3.61E-9	2.87E-11	-8.11E-9	1.17E-8
IR	kBq U-235 eq	2.30E-2	3.41E-4	1.02E-6	2.34E-2	3.23E-4	2.78E-3	1.91E-5	-1.13E-2	1.52E-2
ETP-fw	CTUe	1.27E+1	6.33E-2	1.21E-2	1.28E+1	6.00E-2	6.02E+0	6.63E-2	-4.70E+0	1.43E+1
HTP-c	CTUh	3.75E-10	2.25E-12	6.17E-13	3.78E-10	2.13E-12	8.95E-11	1.15E-13	-1.45E-10	3.24E-10
HTP-nc	CTUh	1.14E-8	7.54E-11	1.57E-11	1.14E-8	7.15E-11	2.11E-9	1.27E-11	-4.39E-9	9.25E-9
SQP	Pt	7.83E+0	6.67E-2	2.24E-3	7.90E+0	6.32E-2	4.78E-1	1.07E-2	-8.94E+0	-4.88E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.44E+0	1.12E-3	2.40E-2	2.47E+0	1.06E-3	5.61E-2	1.55E-4	-1.59E+0	9.33E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.44E+0	1.12E-3	2.40E-2	2.47E+0	1.06E-3	5.61E-2	1.55E-4	-1.59E+0	9.33E-1
PENRE	MJ	1.12E+1	8.27E-2	1.44E-3	1.13E+1	7.84E-2	8.31E-1	4.42E-3	-5.90E+0	6.27E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.12E+1	8.27E-2	1.44E-3	1.13E+1	7.84E-2	8.31E-1	4.42E-3	-5.90E+0	6.27E+0
PET	MJ	1.36E+1	8.39E-2	2.55E-2	1.37E+1	7.95E-2	8.87E-1	4.57E-3	-7.50E+0	7.21E+0
SM	kg	0	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0
FW	m3	7.55E-3	8.82E-6	1.46E-6	7.56E-3	8.36E-6	8.44E-4	5.10E-6	-3.96E-3	4.45E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.12E-5	1.99E-7	2.73E-13	5.14E-5	1.89E-7	1.29E-6	5.08E-9	-4.93E-6	4.80E-5
NHWD	kg	4.58E-2	4.83E-3	1.05E-6	5.06E-2	4.58E-3	2.90E-2	1.83E-2	-2.01E-2	8.25E-2
RWD	kg	2.04E-5	5.30E-7	1.10E-13	2.09E-5	5.02E-7	2.99E-6	2.71E-8	-1.02E-5	1.42E-5
CRU	kg	0	0	0	0	0	0	0	0	0
MFR	kg	0	0	0	0	0	0	0	0	0
MER	kg	0	0	0	0	0	0	0	0	0
EE	MJ	0	0	0	0	0	0	0	0	0
EET	MJ	0	0	0	0	0	0	0	0	0
EEE	MJ	0	0	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