

Environmental Profile

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

Ecochain v3.5.80



Product: 3011431 - PVC Elbow GY 3/4" inj.mld. IMR
Unit: 1 piece
Manufacturer: Wavin - PL -Buk - Extra products

With the PVC range to be glued Wavin, you benefit from a complete choice of pipes and fittings 100% compatible, in all standard sizes on the market, from 32 to 315mm. This system includes a wide range of special accessories: branch saddles, flexible connectors, etc. Certified quality: Wavin glue-on PVC products benefit from the necessary certifications in France (NF-E).

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	6.59E-2	6.63E-4	1.45E-4	6.67E-2	9.97E-4	7.18E-2	3.13E-4	-5.21E-2	8.77E-2
GWP-f	kg CO2 eq	9.85E-2	6.63E-4	1.46E-4	9.93E-2	9.96E-4	3.74E-2	3.13E-4	-5.42E-2	8.38E-2
GWP-b	kg CO2 eq	-3.27E-2	4.03E-7	-1.54E-6	-3.27E-2	6.05E-7	3.44E-2	4.01E-7	2.20E-3	3.88E-3
GWP-luluc	kg CO2 eq	1.01E-4	2.35E-7	1.49E-7	1.01E-4	3.53E-7	1.29E-5	8.06E-9	-6.09E-5	5.37E-5
ODP	kg CFC11 eq	4.51E-8	1.53E-10	8.26E-12	4.53E-8	2.30E-10	3.60E-9	1.18E-11	-2.27E-8	2.64E-8
AP	mol H+ eq	4.53E-4	3.78E-6	1.47E-6	4.58E-4	5.68E-6	6.23E-5	2.86E-7	-2.08E-4	3.18E-4
EP-fw	kg P eq	4.19E-6	5.45E-9	8.24E-9	4.20E-6	8.20E-9	4.33E-7	3.68E-10	-2.02E-6	2.62E-6
EP-m	kg N eq	8.17E-5	1.35E-6	1.55E-7	8.32E-5	2.03E-6	1.56E-5	1.79E-7	-4.02E-5	6.08E-5
EP-T	mol N eq	8.83E-4	1.49E-5	1.85E-6	8.99E-4	2.24E-5	1.72E-4	1.14E-6	-4.40E-4	6.55E-4
POCP	kg NMVOC eq	3.12E-4	4.26E-6	6.28E-7	3.17E-4	6.40E-6	5.10E-5	3.92E-7	-1.52E-4	2.23E-4
ADP-mm	kg Sb eq	2.53E-6	1.71E-8	1.97E-8	2.57E-6	2.58E-8	2.41E-7	2.84E-10	-9.68E-7	1.87E-6
ADP-f	MJ	2.41E+0	1.02E-2	1.36E-3	2.42E+0	1.53E-2	1.65E-1	8.60E-4	-1.23E+0	1.36E+0
WDP	m3 depriv.	1.40E-1	3.12E-5	5.22E-5	1.40E-1	4.69E-5	6.49E-3	4.75E-6	-6.67E-2	8.02E-2
PM	disease inc.	3.68E-9	5.98E-11	9.08E-12	3.75E-9	8.99E-11	7.62E-10	5.92E-12	-1.88E-9	2.72E-9
IR	kBq U-235 eq	4.89E-3	4.45E-5	1.02E-6	4.94E-3	6.68E-5	5.87E-4	3.97E-6	-2.38E-3	3.22E-3
ETP-fw	CTUe	1.96E+0	8.26E-3	1.21E-2	1.98E+0	1.24E-2	1.28E+0	1.41E-2	-9.25E-1	2.36E+0
HTP-c	CTUh	7.62E-11	2.94E-13	6.17E-13	7.71E-11	4.42E-13	1.89E-11	2.32E-14	-3.64E-11	6.01E-11
HTP-nc	CTUh	2.05E-9	9.85E-12	1.57E-11	2.08E-9	1.48E-11	4.49E-10	2.68E-12	-8.87E-10	1.66E-9
SQP	Pt	3.19E+0	8.71E-3	2.24E-3	3.20E+0	1.31E-2	1.01E-1	2.21E-3	-2.90E+0	4.16E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.56E-1	1.46E-4	2.40E-2	6.80E-1	2.19E-4	1.19E-2	3.26E-5	-4.76E-1	2.16E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.56E-1	1.46E-4	2.40E-2	6.80E-1	2.19E-4	1.19E-2	3.26E-5	-4.76E-1	2.16E-1
PENRE	MJ	2.58E+0	1.08E-2	1.44E-3	2.59E+0	1.62E-2	1.75E-1	9.13E-4	-1.33E+0	1.45E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.58E+0	1.08E-2	1.44E-3	2.59E+0	1.62E-2	1.75E-1	9.13E-4	-1.33E+0	1.45E+0
PET	MJ	3.24E+0	1.09E-2	2.55E-2	3.27E+0	1.65E-2	1.87E-1	9.45E-4	-1.81E+0	1.67E+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	1.65E-3	1.15E-6	1.46E-6	1.65E-3	1.73E-6	1.79E-4	1.06E-6	-7.82E-4	1.05E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.96E-6	2.60E-8	2.73E-13	1.99E-6	3.91E-8	2.72E-7	1.04E-9	-1.21E-6	1.09E-6
NHWD	kg	1.05E-2	6.31E-4	1.05E-6	1.12E-2	9.48E-4	6.38E-3	3.79E-3	-4.83E-3	1.75E-2
RWD	kg	4.40E-6	6.92E-8	1.10E-13	4.47E-6	1.04E-7	6.32E-7	5.60E-9	-2.19E-6	3.03E-6
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