

Environmental Profile

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

Ecochain v3.5.80



Product: 3026033 - PVC Branch 45° GY 32 S/S/S BC
 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



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).

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

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
 A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
 B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
 C4 Disposal

Benefits and loads beyond the system boundaries

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

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.39E-1	1.22E-2	1.45E-4	1.52E-1	1.82E-3	1.00E-1	5.65E-4	-8.77E-2	1.67E-1
GWP-f	kg CO2 eq	1.71E-1	1.22E-2	1.46E-4	1.84E-1	1.82E-3	6.41E-2	5.65E-4	-9.34E-2	1.57E-1
GWP-b	kg CO2 eq	-3.21E-2	7.42E-6	-1.54E-6	-3.21E-2	1.10E-6	3.60E-2	7.35E-7	5.75E-3	9.69E-3
GWP-luluc	kg CO2 eq	1.75E-4	4.33E-6	1.49E-7	1.80E-4	6.43E-7	2.37E-5	1.43E-8	-1.10E-4	9.37E-5
ODP	kg CFC11 eq	8.31E-8	2.82E-9	8.26E-12	8.60E-8	4.19E-10	6.66E-9	2.15E-11	-4.09E-8	5.21E-8
AP	mol H+ eq	7.77E-4	6.96E-5	1.47E-6	8.48E-4	1.03E-5	1.13E-4	5.19E-7	-3.59E-4	6.13E-4
EP-fw	kg P eq	7.40E-6	1.01E-7	8.24E-9	7.51E-6	1.49E-8	7.97E-7	6.57E-10	-3.64E-6	4.69E-6
EP-m	kg N eq	1.40E-4	2.49E-5	1.55E-7	1.65E-4	3.70E-6	2.81E-5	3.30E-7	-6.77E-5	1.29E-4
EP-T	mol N eq	1.49E-3	2.75E-4	1.85E-6	1.77E-3	4.08E-5	3.10E-4	2.08E-6	-7.36E-4	1.39E-3
POCP	kg NMVOC eq	5.21E-4	7.85E-5	6.28E-7	6.00E-4	1.17E-5	9.22E-5	7.12E-7	-2.49E-4	4.55E-4
ADP-mm	kg Sb eq	4.41E-6	3.16E-7	1.97E-8	4.75E-6	4.70E-8	4.42E-7	5.13E-10	-1.71E-6	3.52E-6
ADP-f	MJ	4.24E+0	1.88E-1	1.36E-3	4.43E+0	2.79E-2	3.01E-1	1.56E-3	-2.16E+0	2.60E+0
WDP	m3 depriv.	2.55E-1	5.76E-4	5.22E-5	2.55E-1	8.56E-5	1.20E-2	7.15E-6	-1.23E-1	1.44E-1
PM	disease inc.	5.95E-9	1.10E-9	9.08E-12	7.07E-9	1.64E-10	1.39E-9	1.08E-11	-3.07E-9	5.55E-9
IR	kBq U-235 eq	8.69E-3	8.20E-4	1.02E-6	9.51E-3	1.22E-4	1.07E-3	7.24E-6	-4.26E-3	6.45E-3
ETP-fw	CTUe	3.61E+0	1.52E-1	1.21E-2	3.77E+0	2.26E-2	2.38E+0	2.62E-2	-1.69E+0	4.50E+0
HTP-c	CTUh	1.21E-10	5.42E-12	6.17E-13	1.27E-10	8.06E-13	3.31E-11	4.12E-14	-5.73E-11	1.03E-10
HTP-nc	CTUh	3.61E-9	1.82E-10	1.57E-11	3.81E-9	2.70E-11	8.21E-10	4.98E-12	-1.66E-9	3.01E-9
SQP	Pt	3.58E+0	1.61E-1	2.24E-3	3.74E+0	2.39E-2	1.83E-1	4.02E-3	-3.67E+0	2.82E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.96E-1	2.69E-3	2.40E-2	1.02E+0	4.00E-4	2.18E-2	6.00E-5	-6.37E-1	4.09E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.96E-1	2.69E-3	2.40E-2	1.02E+0	4.00E-4	2.18E-2	6.00E-5	-6.37E-1	4.09E-1
PENRE	MJ	4.55E+0	1.99E-1	1.44E-3	4.75E+0	2.96E-2	3.20E-1	1.66E-3	-2.33E+0	2.77E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.55E+0	1.99E-1	1.44E-3	4.75E+0	2.96E-2	3.20E-1	1.66E-3	-2.33E+0	2.77E+0
PET	MJ	5.55E+0	2.02E-1	2.55E-2	5.77E+0	3.00E-2	3.42E-1	1.72E-3	-2.97E+0	3.18E+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	2.90E-3	2.12E-5	1.46E-6	2.92E-3	3.16E-6	3.31E-4	1.93E-6	-1.45E-3	1.80E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.36E-6	4.80E-7	2.73E-13	3.84E-6	7.13E-8	4.95E-7	1.88E-9	-1.98E-6	2.42E-6
NHWD	kg	1.74E-2	1.16E-2	1.05E-6	2.90E-2	1.73E-3	1.14E-2	6.91E-3	-7.82E-3	4.12E-2
RWD	kg	7.76E-6	1.28E-6	1.10E-13	9.04E-6	1.90E-7	1.15E-6	1.02E-8	-3.87E-6	6.52E-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



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