Environmental Profile

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

Ecochain v3.5.80

Product:	3026003 - PVC Coupler GY 32 S/S BC
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

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

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	4.20E-2	4.43E-3	1.45E-4	4.65E-2	6.85E-4	6.42E-2	2.13E-4	-3.96E-2	7.21E-2
GWP-f	kg CO2 eq	7.49E-2	4.43E-3	1.46E-4	7.95E-2	6.84E-4	3.00E-2	2.13E-4	-4.14E-2	6.89E-2
GWP-b	kg CO2 eq	-3.30E-2	2.69E-6	-1.54E-6	-3.30E-2	4.16E-7	3.42E-2	2.77E-7	1.89E-3	3.12E-3
GWP-luluc	kg CO2 eq	8.07E-5	1.57E-6	1.49E-7	8.25E-5	2.42E-7	9.03E-6	5.38E-9	-4.97E-5	4.20E-5
ODP	kg CFC11 eq	3.20E-8	1.02E-9	8.26E-12	3.30E-8	1.58E-10	2.55E-9	8.08E-12	-1.61E-8	1.96E-8
AP	mol H+ eq	3.41E-4	2.52E-5	1.47E-6	3.68E-4	3.90E-6	4.44E-5	1.95E-7	-1.55E-4	2.61E-4
EP-fw	kg P eq	3.13E-6	3.64E-8	8.24E-9	3.18E-6	5.63E-9	3.03E-7	2.48E-10	-1.48E-6	2.00E-6
EP-m	kg N eq	6.33E-5	9.02E-6	1.55E-7	7.25E-5	1.39E-6	1.13E-5	1.24E-7	-3.11E-5	5.42E-5
EP-T	mol N eq	6.82E-4	9.94E-5	1.85E-6	7.83E-4	1.54E-5	1.24E-4	7.82E-7	-3.43E-4	5.81E-4
POCP	kg NMVOC eq	2.47E-4	2.84E-5	6.28E-7	2.76E-4	4.39E-6	3.68E-5	2.68E-7	-1.18E-4	2.00E-4
ADP-mm	kg Sb eq	1.71E-6	1.14E-7	1.97E-8	1.85E-6	1.77E-8	1.70E-7	1.93E-10	-6.93E-7	1.34E-6
ADP-f	MJ	1.84E+0	6.79E-2	1.36E-3	1.91E+0	1.05E-2	1.16E-1	5.89E-4	-9.22E-1	1.12E+0
WDP	m3 depriv.	1.02E-1	2.08E-4	5.22E-5	1.02E-1	3.22E-5	4.55E-3	2.69E-6	-4.69E-2	5.97E-2
PM	disease inc.	2.90E-9	4.00E-10	9.08E-12	3.31E-9	6.18E-11	5.41E-10	4.06E-12	-1.52E-9	2.40E-9
IR	kBq U-235 eq	3.62E-3	2.97E-4	1.02E-6	3.92E-3	4.59E-5	4.15E-4	2.73E-6	-1.74E-3	2.64E-3
ETP-fw	CTUe	1.48E+0	5.52E-2	1.21E-2	1.55E+0	8.53E-3	8.98E-1	9.88E-3	-7.03E-1	1.76E+0
HTP-c	CTUh	5.55E-11	1.96E-12	6.17E-13	5.81E-11	3.04E-13	1.35E-11	1.55E-14	-2.91E-11	4.28E-11
HTP-nc	CTUh	1.46E-9	6.58E-11	1.57E-11	1.54E-9	1.02E-11	3.18E-10	1.88E-12	-6.85E-10	1.19E-9
SQP	Pt	3.10E+0	5.81E-2	2.24E-3	3.16E+0	8.99E-3	7.10E-2	1.52E-3	-2.79E+0	4.46E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.99E-1	9.75E-4	2.40E-2	6.24E-1	1.51E-4	8.31E-3	2.26E-5	-4.49E-1	1.83E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.99E-1	9.75E-4	2.40E-2	6.24E-1	1.51E-4	8.31E-3	2.26E-5	-4.49E-1	1.83E-1
PENRE	MJ	1.98E+0	7.21E-2	1.44E-3	2.05E+0	1.12E-2	1.23E-1	6.25E-4	-9.95E-1	1.19E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.98E+0	7.21E-2	1.44E-3	2.05E+0	1.12E-2	1.23E-1	6.25E-4	-9.95E-1	1.19E+0
PET	MJ	2.58E+0	7.31E-2	2.55E-2	2.67E+0	1.13E-2	1.32E-1	6.48E-4	-1.44E+0	1.37E+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	1.23E-3	7.69E-6	1.46E-6	1.24E-3	1.19E-6	1.27E-4	7.28E-7	-5.67E-4	8.05E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.44E-6	1.74E-7	2.73E-13	1.61E-6	2.69E-8	1.93E-7	7.08E-10	-9.29E-7	9.01E-7
NHWD	kg	7.98E-3	4.21E-3	1.05E-6	1.22E-2	6.51E-4	4.67E-3	2.60E-3	-3.76E-3	1.64E-2
RWD	kg	3.28E-6	4.62E-7	1.10E-13	3.74E-6	7.14E-8	4.49E-7	3.85E-9	-1.62E-6	2.64E-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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