Environmental Profile

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

Ecochain v3.5.80

Product:	3085241 - PVC Vent. Solv.Cement Coupler BL 80 S/S
Unit:	1 piece
Manufacturer:	Wavin - NL - Hardenberg - Verified
Address:	J.C. Kellerlaan 3 7772 SG Hardenberg Netherlands

With the new Ventiza air distribution system, Wavin offers a solution from the ventilation to the valve. A good indoor climate is arranged in no time!

LCA standard:	NMD Bepalingsmethode 1.1 (2022)
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 - NL - Hardenberg - Verified (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

ECI = Environmental Costs Indicator [euro]; **ADPE** = Abiotic depletion potential for non-fossil resources [kg Sb-eq]; **ADPF** = Abiotic depletion potential for fossil resources [kg Sb-eq]; **GWP** = Global warming potential [kg CO2-eq]; **ODP** = Depletion potential of the stratospheric ozone layer [kg CFC-11-eq]; **POCP** = Formation potential of tropospheric ozone photochemical oxidants [kg ethene-eq]; **AP** = Acidification potential of land and water [kg SO2-eq]; **EP** = Eutrophication potential [kg PO4 3−-eq]; **HTP** = Human toxicity potential [kg 1,4-DB-eq]; **FAETP** = Freshwater aquatic ecotoxicity potential [kg 1,4-DB-eq]; **MAETP** = Marine aquatic ecotoxicity potential [kg 1,4-DB-eq]; **TETP** = Terrestrial ecotoxicity potential [kg 1,4-DB-eq]; **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 SBK set 1	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
ECI	euro	0.02	0	0	0.02	0	0.01	0	-0.01	0.02
ADPE	kg Sb-eq	1.78E-4	6.54E-8	3.41E-7	1.79E-4	5.52E-8	5.30E-7	6.17E-10	-2.02E-6	1.77E-4
ADPF	kg Sb-eq	2.13E-3	1.88E-5	5.85E-5	2.20E-3	1.55E-5	1.79E-4	8.54E-7	-1.14E-3	1.26E-3
GWP	kg CO2-eq	1.89E-1	2.56E-3	1.11E-2	2.03E-1	2.12E-3	6.01E-2	5.84E-4	-1.01E-1	1.65E-1
ODP	kg CFC-11-eq	9.12E-8	4.54E-10	8.78E-10	9.26E-8	3.92E-10	7.38E-9	2.03E-11	-4.78E-8	5.26E-8
POCP	kg ethene-eq	1.14E-4	1.54E-6	4.83E-6	1.20E-4	1.27E-6	1.48E-5	1.51E-7	-5.48E-5	8.17E-5
AP	kg SO2-eq	7.75E-4	1.13E-5	4.77E-5	8.34E-4	9.10E-6	1.06E-4	4.60E-7	-3.72E-4	5.77E-4
EP	kg PO4 3−-eq	1.07E-4	2.21E-6	6.14E-6	1.15E-4	1.82E-6	1.64E-5	1.81E-7	-5.89E-5	7.46E-5
HTP	kg 1,4-DB-eq	6.83E-2	1.08E-3	5.16E-3	7.46E-2	9.05E-4	2.73E-2	4.84E-5	-3.44E-2	6.84E-2
FAETP	kg 1,4-DB-eq	2.52E-3	3.15E-5	1.76E-4	2.73E-3	2.65E-5	4.23E-4	1.53E-5	-1.28E-3	1.91E-3
MAETP	kg 1,4-DB-eq	4.91E+0	1.13E-1	6.94E-1	5.72E+0	9.47E-2	1.52E+0	1.86E-2	-2.23E+0	5.12E+0
TETP	kg 1,4-DB-eq	5.27E-4	3.81E-6	3.84E-4	9.15E-4	3.21E-6	9.51E-5	1.62E-7	-4.30E-4	5.83E-4
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.96E-1	2.58E-3	1.27E-2	2.11E-1	2.13E-3	7.07E-2	6.81E-4	-8.01E-2	2.05E-1
GWP-f	kg CO2 eq	1.94E-1	2.58E-3	9.77E-3	2.06E-1	2.13E-3	6.05E-2	6.81E-4	-1.03E-1	1.66E-1
GWP-b	kg CO2 eq	1.94E-3	1.19E-6	2.02E-3	3.96E-3	1.29E-6	1.02E-2	8.55E-7	2.30E-2	3.72E-2
GWP-luluc	kg CO2 eq	2.73E-4	9.46E-7	9.27E-4	1.20E-3	7.55E-7	2.72E-5	1.79E-8	-2.23E-4	1.01E-3
ODP	kg CFC11 eq	9.02E-8	5.70E-10	1.03E-9	9.18E-8	4.91E-10	7.63E-9	2.53E-11	-4.73E-8	5.27E-8
AP	mol H+ eq	9.51E-4	1.50E-5	5.96E-5	1.03E-3	1.21E-5	1.33E-4	6.15E-7	-4.55E-4	7.17E-4
EP-fw	kg P eq	9.42E-6	2.60E-8	1.71E-7	9.61E-6	1.75E-8	9.13E-7	8.07E-10	-5.39E-6	5.15E-6
EP-m	kg N eq	1.83E-4	5.28E-6	1.41E-5	2.02E-4	4.35E-6	3.35E-5	3.80E-7	-8.49E-5	1.56E-4
EP-T	mol N eq	1.89E-3	5.82E-5	1.55E-4	2.11E-3	4.79E-5	3.69E-4	2.45E-6	-9.27E-4	1.60E-3
POCP	kg NMVOC eq	5.98E-4	1.66E-5	4.41E-5	6.59E-4	1.37E-5	1.11E-4	8.44E-7	-2.93E-4	4.91E-4
ADP-mm	kg Sb eq	1.78E-4	6.54E-8	3.41E-7	1.79E-4	5.52E-8	5.30E-7	6.17E-10	-2.01E-6	1.77E-4
ADP-f	MJ	4.52E+0	3.89E-2	1.09E-1	4.66E+0	3.27E-2	3.54E-1	1.85E-3	-2.42E+0	2.64E+0
WDP	m3 depriv.	2.77E-1	1.39E-4	8.45E-2	3.62E-1	1.00E-4	1.36E-2	1.23E-5	-1.65E-1	2.10E-1
PM	disease inc.	7.18E-9	2.32E-10	7.35E-10	8.14E-9	1.92E-10	1.67E-9	1.27E-11	-4.40E-9	5.62E-9
IR	kBq U-235 eq	1.00E-2	1.63E-4	1.74E-4	1.04E-2	1.43E-4	1.27E-3	8.48E-6	-5.68E-3	6.09E-3
ETP-fw	CTUe	7.11E+0	3.47E-2	2.54E-1	7.40E+0	2.66E-2	2.67E+0	2.92E-2	-3.04E+0	7.08E+0
HTP-c	CTUh	1.48E-10	1.13E-12	8.78E-12	1.58E-10	9.46E-13	4.02E-11	5.12E-14	-6.17E-11	1.38E-10
HTP-nc	CTUh	4.83E-9	3.80E-11	2.74E-10	5.14E-9	3.17E-11	9.40E-10	5.60E-12	-2.13E-9	3.99E-9
SQP	Pt	1.49E+0	3.38E-2	8.16E-3	1.53E+0	2.80E-2	2.16E-1	4.73E-3	-4.46E+0	-2.69E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.02E-1	4.87E-4	5.31E-1	9.33E-1	4.70E-4	2.50E-2	6.87E-5	-8.62E-1	9.64E-2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.02E-1	4.87E-4	5.31E-1	9.33E-1	4.70E-4	2.50E-2	6.87E-5	-8.62E-1	9.64E-2
PENRE	MJ	4.85E+0	4.13E-2	1.18E-1	5.01E+0	3.47E-2	3.77E-1	1.96E-3	-2.60E+0	2.82E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.85E+0	4.13E-2	1.18E-1	5.01E+0	3.47E-2	3.77E-1	1.96E-3	-2.60E+0	2.82E+0
PET	MJ	5.25E+0	4.18E-2	6.49E-1	5.94E+0	3.52E-2	4.02E-1	2.03E-3	-3.46E+0	2.92E+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	3.29E-3	4.74E-6	2.00E-3	5.29E-3	3.70E-6	3.74E-4	2.26E-6	-2.25E-3	3.42E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.56E-5	9.87E-8	1.16E-7	2.58E-5	8.37E-8	5.94E-7	2.25E-9	-2.11E-6	2.44E-5
NHWD	kg	2.01E-2	2.47E-3	1.79E-4	2.28E-2	2.03E-3	1.29E-2	8.11E-3	-8.83E-3	3.70E-2
RWD	kg	8.81E-6	2.56E-7	2.15E-7	9.28E-6	2.23E-7	1.38E-6	1.20E-8	-5.11E-6	5.79E-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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