

Environmental Profile

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

Ecochain v3.5.80



Product: 3085246 - PVC Vent. Bend 90° BL 235 S/S
Unit: 1 piece
Manufacturer: Wavin - NL - Hardenberg - Verified
Address: J.C. Kellerlaan 3
7772 SG Hardenberg
Netherlands

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



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!

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					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

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	0.27	0	0.02	0.3	0	0.08	0	-0.14	0.25
ADPE	kg Sb-eq	2.36E-3	8.26E-7	4.83E-6	2.36E-3	7.35E-7	6.86E-6	8.26E-9	-2.63E-5	2.34E-3
ADPF	kg Sb-eq	2.80E-2	2.38E-4	8.30E-4	2.91E-2	2.07E-4	2.34E-3	1.14E-5	-1.48E-2	1.69E-2
GWP	kg CO2-eq	2.47E+0	3.23E-2	1.58E-1	2.66E+0	2.82E-2	7.94E-1	7.81E-3	-1.29E+0	2.20E+0
ODP	kg CFC-11-eq	1.20E-6	5.73E-9	1.25E-8	1.22E-6	5.23E-9	9.67E-8	2.71E-10	-6.30E-7	6.90E-7
POCP	kg ethene-eq	1.51E-3	1.95E-5	6.85E-5	1.60E-3	1.69E-5	1.90E-4	2.02E-6	-6.92E-4	1.12E-3
AP	kg SO2-eq	1.01E-2	1.42E-4	6.77E-4	1.10E-2	1.21E-4	1.37E-3	6.14E-6	-4.62E-3	7.84E-3
EP	kg PO4 3--eq	1.34E-3	2.79E-5	8.71E-5	1.46E-3	2.42E-5	2.11E-4	2.41E-6	-6.87E-4	1.01E-3
HTP	kg 1,4-DB-eq	9.16E-1	1.36E-2	7.32E-2	1.00E+0	1.21E-2	3.57E-1	6.45E-4	-4.33E-1	9.40E-1
FAETP	kg 1,4-DB-eq	3.08E-2	3.97E-4	2.50E-3	3.37E-2	3.53E-4	5.49E-3	2.04E-4	-1.44E-2	2.53E-2
MAETP	kg 1,4-DB-eq	6.43E+1	1.43E+0	9.85E+0	7.55E+1	1.26E+0	1.94E+1	2.48E-1	-2.80E+1	6.84E+1
TETP	kg 1,4-DB-eq	6.69E-3	4.81E-5	5.44E-3	1.22E-2	4.27E-5	1.25E-3	2.16E-6	-4.84E-3	8.64E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.55E+0	3.26E-2	1.80E-1	2.77E+0	2.85E-2	8.96E-1	9.11E-3	-1.11E+0	2.59E+0
GWP-f	kg CO2 eq	2.53E+0	3.26E-2	1.39E-1	2.70E+0	2.84E-2	7.99E-1	9.11E-3	-1.32E+0	2.21E+0
GWP-b	kg CO2 eq	2.45E-2	1.50E-5	2.86E-2	5.31E-2	1.73E-5	9.61E-2	1.14E-5	2.13E-1	3.63E-1
GWP-luluc	kg CO2 eq	3.14E-3	1.19E-5	1.32E-2	1.63E-2	1.01E-5	3.59E-4	2.40E-7	-2.33E-3	1.43E-2
ODP	kg CFC11 eq	1.19E-6	7.19E-9	1.46E-8	1.21E-6	6.55E-9	9.98E-8	3.37E-10	-6.24E-7	6.91E-7
AP	mol H+ eq	1.24E-2	1.89E-4	8.45E-4	1.34E-2	1.62E-4	1.73E-3	8.21E-6	-5.63E-3	9.69E-3
EP-fw	kg P eq	1.21E-4	3.29E-7	2.43E-6	1.24E-4	2.34E-7	1.20E-5	1.08E-8	-6.39E-5	7.19E-5
EP-m	kg N eq	2.31E-3	6.66E-5	2.00E-4	2.57E-3	5.79E-5	4.29E-4	5.06E-6	-1.03E-3	2.03E-3
EP-T	mol N eq	2.40E-2	7.34E-4	2.20E-3	2.69E-2	6.38E-4	4.73E-3	3.27E-5	-1.12E-2	2.12E-2
POCP	kg NMVOC eq	7.78E-3	2.10E-4	6.26E-4	8.61E-3	1.83E-4	1.42E-3	1.13E-5	-3.62E-3	6.60E-3
ADP-mm	kg Sb eq	2.36E-3	8.26E-7	4.83E-6	2.36E-3	7.35E-7	6.85E-6	8.26E-9	-2.62E-5	2.34E-3
ADP-f	MJ	5.94E+1	4.91E-1	1.55E+0	6.15E+1	4.36E-1	4.63E+0	2.46E-2	-3.14E+1	3.52E+1
WDP	m3 depriv.	3.70E+0	1.76E-3	1.20E+0	4.90E+0	1.34E-3	1.79E-1	1.72E-4	-2.07E+0	3.02E+0
PM	disease inc.	9.04E-8	2.93E-9	1.04E-8	1.04E-7	2.57E-9	2.16E-8	1.70E-10	-4.99E-8	7.82E-8
IR	kBq U-235 eq	1.30E-1	2.06E-3	2.46E-3	1.34E-1	1.91E-3	1.65E-2	1.13E-4	-7.00E-2	8.29E-2
ETP-fw	CTUe	8.39E+1	4.38E-1	3.60E+0	8.79E+1	3.54E-1	3.52E+1	3.86E-1	-3.36E+1	9.03E+1
HTP-c	CTUh	2.01E-9	1.42E-11	1.25E-10	2.15E-9	1.26E-11	5.27E-10	6.88E-13	-7.68E-10	1.92E-9
HTP-nc	CTUh	6.31E-8	4.79E-10	3.89E-9	6.75E-8	4.22E-10	1.23E-8	7.42E-11	-2.65E-8	5.38E-8
SQP	Pt	1.62E+1	4.26E-1	1.16E-1	1.68E+1	3.73E-1	2.82E+0	6.30E-2	-4.29E+1	-2.28E+1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.61E+0	6.15E-3	7.53E+0	1.21E+1	6.26E-3	3.30E-1	9.13E-4	-8.48E+0	4.00E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.61E+0	6.15E-3	7.53E+0	1.21E+1	6.26E-3	3.30E-1	9.13E-4	-8.48E+0	4.00E+0
PENRE	MJ	6.38E+1	5.22E-1	1.67E+0	6.60E+1	4.63E-1	4.92E+0	2.61E-2	-3.37E+1	3.77E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.38E+1	5.22E-1	1.67E+0	6.60E+1	4.63E-1	4.92E+0	2.61E-2	-3.37E+1	3.77E+1
PET	MJ	6.84E+1	5.28E-1	9.21E+0	7.81E+1	4.70E-1	5.25E+0	2.70E-2	-4.22E+1	4.17E+1
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	4.41E-2	5.99E-5	2.83E-2	7.25E-2	4.94E-5	4.93E-3	3.01E-5	-2.66E-2	5.09E-2
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.38E-4	1.25E-6	1.65E-6	3.41E-4	1.12E-6	7.68E-6	3.01E-8	-2.69E-5	3.22E-4
NHWD	kg	2.55E-1	3.12E-2	2.54E-3	2.89E-1	2.70E-2	1.68E-1	1.08E-1	-1.10E-1	4.81E-1
RWD	kg	1.14E-4	3.23E-6	3.05E-6	1.20E-4	2.97E-6	1.78E-5	1.60E-7	-6.27E-5	7.83E-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



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