

Environmental Profile

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

Ecochain v3.5.80



Product: 3085245 - PVC Vent. Bend 45° 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	0.14	0	0.01	0.15	0	0.04	0	-0.07	0.13
ADPE	kg Sb-eq	1.29E-3	4.18E-7	2.07E-6	1.29E-3	3.99E-7	3.60E-6	4.47E-9	-1.38E-5	1.28E-3
ADPF	kg Sb-eq	1.47E-2	1.20E-4	3.56E-4	1.52E-2	1.12E-4	1.24E-3	6.18E-6	-7.81E-3	8.71E-3
GWP	kg CO2-eq	1.27E+0	1.64E-2	6.75E-2	1.35E+0	1.53E-2	4.26E-1	4.22E-3	-6.69E-1	1.13E+0
ODP	kg CFC-11-eq	6.48E-7	2.90E-9	5.33E-9	6.56E-7	2.84E-9	5.21E-8	1.47E-10	-3.38E-7	3.74E-7
POCP	kg ethene-eq	7.79E-4	9.88E-6	2.93E-5	8.18E-4	9.18E-6	9.84E-5	1.09E-6	-3.50E-4	5.77E-4
AP	kg SO2-eq	5.22E-3	7.20E-5	2.90E-4	5.58E-3	6.58E-5	7.26E-4	3.32E-6	-2.28E-3	4.09E-3
EP	kg PO4 3--eq	6.54E-4	1.41E-5	3.73E-5	7.06E-4	1.32E-5	1.10E-4	1.31E-6	-3.07E-4	5.23E-4
HTP	kg 1,4-DB-eq	4.59E-1	6.89E-3	3.14E-2	4.97E-1	6.55E-3	1.90E-1	3.50E-4	-2.17E-1	4.77E-1
FAETP	kg 1,4-DB-eq	1.41E-2	2.01E-4	1.07E-3	1.54E-2	1.92E-4	2.88E-3	1.10E-4	-6.06E-3	1.25E-2
MAETP	kg 1,4-DB-eq	3.27E+1	7.24E-1	4.22E+0	3.77E+1	6.85E-1	9.92E+0	1.34E-1	-1.41E+1	3.44E+1
TETP	kg 1,4-DB-eq	3.37E-3	2.44E-5	2.33E-3	5.73E-3	2.32E-5	6.75E-4	1.17E-6	-2.02E-3	4.40E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.31E+0	1.65E-2	7.72E-2	1.41E+0	1.54E-2	4.54E-1	4.93E-3	-6.31E-1	1.25E+0
GWP-f	kg CO2 eq	1.30E+0	1.65E-2	5.93E-2	1.38E+0	1.54E-2	4.29E-1	4.93E-3	-6.83E-1	1.14E+0
GWP-b	kg CO2 eq	1.24E-2	7.62E-6	1.22E-2	2.46E-2	9.37E-6	2.49E-2	6.19E-6	5.34E-2	1.03E-1
GWP-luluc	kg CO2 eq	1.35E-3	6.05E-6	5.63E-3	6.99E-3	5.46E-6	1.94E-4	1.29E-7	-8.29E-4	6.36E-3
ODP	kg CFC11 eq	6.39E-7	3.64E-9	6.27E-9	6.49E-7	3.55E-9	5.36E-8	1.83E-10	-3.34E-7	3.72E-7
AP	mol H+ eq	6.32E-3	9.57E-5	3.62E-4	6.78E-3	8.79E-5	9.10E-4	4.45E-6	-2.76E-3	5.02E-3
EP-fw	kg P eq	6.11E-5	1.66E-7	1.04E-6	6.24E-5	1.27E-7	6.49E-6	5.84E-9	-2.93E-5	3.97E-5
EP-m	kg N eq	1.13E-3	3.37E-5	8.55E-5	1.25E-3	3.14E-5	2.23E-4	2.75E-6	-4.92E-4	1.02E-3
EP-T	mol N eq	1.19E-2	3.72E-4	9.42E-4	1.32E-2	3.46E-4	2.45E-3	1.77E-5	-5.29E-3	1.07E-2
POCP	kg NMVOC eq	3.94E-3	1.06E-4	2.68E-4	4.31E-3	9.90E-5	7.34E-4	6.11E-6	-1.77E-3	3.38E-3
ADP-mm	kg Sb eq	1.29E-3	4.18E-7	2.07E-6	1.29E-3	3.99E-7	3.60E-6	4.47E-9	-1.38E-5	1.28E-3
ADP-f	MJ	3.12E+1	2.49E-1	6.63E-1	3.21E+1	2.37E-1	2.46E+0	1.33E-2	-1.65E+1	1.84E+1
WDP	m3 depriv.	1.97E+0	8.90E-4	5.13E-1	2.48E+0	7.27E-4	9.74E-2	8.89E-5	-1.03E+0	1.55E+0
PM	disease inc.	4.33E-8	1.48E-9	4.47E-9	4.93E-8	1.39E-9	1.13E-8	9.19E-11	-2.12E-8	4.08E-8
IR	kBq U-235 eq	6.76E-2	1.04E-3	1.05E-3	6.97E-2	1.03E-3	8.71E-3	6.13E-5	-3.42E-2	4.54E-2
ETP-fw	CTUe	3.74E+1	2.22E-1	1.54E+0	3.92E+1	1.92E-1	1.91E+1	2.11E-1	-1.35E+1	4.52E+1
HTP-c	CTUh	1.01E-9	7.20E-12	5.33E-11	1.07E-9	6.84E-12	2.75E-10	3.70E-13	-3.81E-10	9.77E-10
HTP-nc	CTUh	3.33E-8	2.43E-10	1.67E-9	3.52E-8	2.29E-10	6.63E-9	4.05E-11	-1.32E-8	2.90E-8
SQP	Pt	6.21E+0	2.16E-1	4.96E-2	6.47E+0	2.03E-1	1.50E+0	3.42E-2	-1.21E+1	-3.86E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.97E+0	3.12E-3	3.23E+0	5.20E+0	3.40E-3	1.78E-1	4.97E-4	-2.57E+0	2.80E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.97E+0	3.12E-3	3.23E+0	5.20E+0	3.40E-3	1.78E-1	4.97E-4	-2.57E+0	2.80E+0
PENRE	MJ	3.35E+1	2.64E-1	7.17E-1	3.45E+1	2.51E-1	2.62E+0	1.42E-2	-1.77E+1	1.96E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.35E+1	2.64E-1	7.17E-1	3.45E+1	2.51E-1	2.62E+0	1.42E-2	-1.77E+1	1.96E+1
PET	MJ	3.55E+1	2.67E-1	3.94E+0	3.97E+1	2.55E-1	2.80E+0	1.47E-2	-2.03E+1	2.25E+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	2.24E-2	3.03E-5	1.21E-2	3.46E-2	2.68E-5	2.67E-3	1.63E-5	-1.21E-2	2.52E-2
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.83E-4	6.31E-7	7.05E-7	1.84E-4	6.06E-7	4.02E-6	1.63E-8	-1.39E-5	1.75E-4
NHWD	kg	1.26E-1	1.58E-2	1.09E-3	1.42E-1	1.47E-2	8.89E-2	5.87E-2	-5.50E-2	2.50E-1
RWD	kg	5.87E-5	1.63E-6	1.31E-6	6.16E-5	1.61E-6	9.34E-6	8.68E-8	-3.03E-5	4.23E-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