Environmental Profile

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

Ecochain v3.5.80

Product:	3085259 - PVC Vent.T-piece BL 195x125 H=70 3S
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

Results

Environmental impact SBK set 1	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
ECI	euro	0.13	0	0.01	0.14	0	0.04	0	-0.06	0.12
ADPE	kg Sb-eq	1.21E-3	3.89E-7	1.92E-6	1.21E-3	3.74E-7	3.37E-6	4.18E-9	-1.29E-5	1.20E-3
ADPF	kg Sb-eq	1.37E-2	1.12E-4	3.31E-4	1.42E-2	1.05E-4	1.16E-3	5.79E-6	-7.29E-3	8.14E-3
GWP	kg CO2-eq	1.18E+0	1.52E-2	6.28E-2	1.26E+0	1.43E-2	3.99E-1	3.96E-3	-6.23E-1	1.05E+0
ODP	kg CFC-11-eq	6.06E-7	2.70E-9	4.96E-9	6.14E-7	2.66E-9	4.87E-8	1.38E-10	-3.16E-7	3.50E-7
POCP	kg ethene-eq	7.28E-4	9.19E-6	2.73E-5	7.64E-4	8.60E-6	9.18E-5	1.02E-6	-3.25E-4	5.40E-4
AP	kg SO2-eq	4.87E-3	6.70E-5	2.70E-4	5.20E-3	6.17E-5	6.78E-4	3.11E-6	-2.12E-3	3.83E-3
EP	kg PO4 3−-eq	6.07E-4	1.32E-5	3.47E-5	6.55E-4	1.23E-5	1.03E-4	1.23E-6	-2.82E-4	4.89E-4
HTP	kg 1,4-DB-eq	4.29E-1	6.41E-3	2.92E-2	4.64E-1	6.13E-3	1.77E-1	3.28E-4	-2.02E-1	4.46E-1
FAETP	kg 1,4-DB-eq	1.30E-2	1.87E-4	9.96E-4	1.42E-2	1.80E-4	2.69E-3	1.03E-4	-5.52E-3	1.16E-2
MAETP	kg 1,4-DB-eq	3.05E+1	6.73E-1	3.92E+0	3.51E+1	6.42E-1	9.24E+0	1.26E-1	-1.31E+1	3.21E+1
TETP	kg 1,4-DB-eq	3.14E-3	2.27E-5	2.17E-3	5.33E-3	2.17E-5	6.32E-4	1.10E-6	-1.85E-3	4.14E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.23E+0	1.54E-2	7.18E-2	1.31E+0	1.45E-2	4.23E-1	4.62E-3	-5.93E-1	1.16E+0
GWP-f	kg CO2 eq	1.21E+0	1.54E-2	5.52E-2	1.28E+0	1.45E-2	4.02E-1	4.61E-3	-6.37E-1	1.07E+0
GWP-b	kg CO2 eq	1.15E-2	7.09E-6	1.14E-2	2.29E-2	8.78E-6	2.10E-2	5.79E-6	4.46E-2	8.85E-2
GWP-luluc	kg CO2 eq	1.23E-3	5.63E-6	5.24E-3	6.48E-3	5.11E-6	1.81E-4	1.21E-7	-7.40E-4	5.92E-3
ODP	kg CFC11 eq	5.98E-7	3.39E-9	5.83E-9	6.07E-7	3.33E-9	5.02E-8	1.71E-10	-3.13E-7	3.49E-7
AP	mol H+ eq	5.90E-3	8.91E-5	3.37E-4	6.32E-3	8.23E-5	8.50E-4	4.17E-6	-2.56E-3	4.70E-3
EP-fw	kg P eq	5.70E-5	1.55E-7	9.67E-7	5.81E-5	1.19E-7	6.07E-6	5.47E-9	-2.70E-5	3.73E-5
EP-m	kg N eq	1.05E-3	3.14E-5	7.95E-5	1.16E-3	2.95E-5	2.08E-4	2.58E-6	-4.56E-4	9.48E-4
EP-T	mol N eq	1.10E-2	3.46E-4	8.77E-4	1.22E-2	3.25E-4	2.29E-3	1.66E-5	-4.89E-3	9.98E-3
POCP	kg NMVOC eq	3.67E-3	9.88E-5	2.49E-4	4.02E-3	9.28E-5	6.84E-4	5.72E-6	-1.64E-3	3.16E-3
ADP-mm	kg Sb eq	1.21E-3	3.89E-7	1.92E-6	1.21E-3	3.74E-7	3.37E-6	4.18E-9	-1.29E-5	1.20E-3
ADP-f	MJ	2.92E+1	2.32E-1	6.17E-1	3.00E+1	2.22E-1	2.30E+0	1.25E-2	-1.54E+1	1.72E+1
WDP	m3 depriv.	1.84E+0	8.29E-4	4.78E-1	2.32E+0	6.81E-4	9.12E-2	8.33E-5	-9.60E-1	1.45E+0
PM	disease inc.	4.02E-8	1.38E-9	4.16E-9	4.57E-8	1.30E-9	1.05E-8	8.61E-11	-1.94E-8	3.82E-8
IR	kBq U-235 eq	6.31E-2	9.71E-4	9.81E-4	6.51E-2	9.70E-4	8.14E-3	5.74E-5	-3.17E-2	4.26E-2
ETP-fw	CTUe	3.44E+1	2.07E-1	1.43E+0	3.60E+1	1.80E-1	1.79E+1	1.98E-1	-1.22E+1	4.21E+1
HTP-c	CTUh	9.48E-10	6.70E-12	4.96E-11	1.00E-9	6.41E-12	2.57E-10	3.47E-13	-3.54E-10	9.14E-10
HTP-nc	CTUh	3.12E-8	2.26E-10	1.55E-9	3.29E-8	2.15E-10	6.20E-9	3.80E-11	-1.22E-8	2.72E-8
SQP	Pt	5.60E+0	2.01E-1	4.61E-2	5.84E+0	1.90E-1	1.41E+0	3.20E-2	-1.03E+1	-2.88E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.80E+0	2.90E-3	3.00E+0	4.80E+0	3.18E-3	1.67E-1	4.66E-4	-2.24E+0	2.74E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.80E+0	2.90E-3	3.00E+0	4.80E+0	3.18E-3	1.67E-1	4.66E-4	-2.24E+0	2.74E+0
PENRE	MJ	3.13E+1	2.46E-1	6.67E-1	3.22E+1	2.36E-1	2.45E+0	1.33E-2	-1.65E+1	1.84E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.13E+1	2.46E-1	6.67E-1	3.22E+1	2.36E-1	2.45E+0	1.33E-2	-1.65E+1	1.84E+1
PET	MJ	3.31E+1	2.49E-1	3.67E+0	3.70E+1	2.39E-1	2.62E+0	1.37E-2	-1.88E+1	2.11E+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	2.09E-2	2.82E-5	1.13E-2	3.23E-2	2.51E-5	2.50E-3	1.53E-5	-1.11E-2	2.37E-2
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.71E-4	5.87E-7	6.55E-7	1.73E-4	5.67E-7	3.76E-6	1.52E-8	-1.29E-5	1.64E-4
NHWD	kg	1.17E-1	1.47E-2	1.01E-3	1.32E-1	1.37E-2	8.30E-2	5.50E-2	-5.11E-2	2.33E-1
RWD	kg	5.47E-5	1.52E-6	1.21E-6	5.75E-5	1.51E-6	8.72E-6	8.13E-8	-2.81E-5	3.97E-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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