Environmental Profile

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

Ecochain v3.5.80

Product:	3085258 - PVC Vent.T-piece BL 195x125 H=50 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	0.12	0	0.01	0.13	0	0.04	0	-0.06	0.11
ADPE	kg Sb-eq	1.13E-3	3.56E-7	1.75E-6	1.13E-3	3.51E-7	3.12E-6	3.92E-9	-1.20E-5	1.12E-3
ADPF	kg Sb-eq	1.28E-2	1.03E-4	3.00E-4	1.32E-2	9.87E-5	1.08E-3	5.43E-6	-6.78E-3	7.57E-3
GWP	kg CO2-eq	1.09E+0	1.39E-2	5.70E-2	1.16E+0	1.34E-2	3.73E-1	3.71E-3	-5.75E-1	9.79E-1
ODP	kg CFC-11-eq	5.67E-7	2.47E-9	4.51E-9	5.74E-7	2.49E-9	4.55E-8	1.29E-10	-2.95E-7	3.27E-7
POCP	kg ethene-eq	6.75E-4	8.42E-6	2.48E-5	7.08E-4	8.07E-6	8.48E-5	9.61E-7	-2.98E-4	5.04E-4
AP	kg SO2-eq	4.51E-3	6.13E-5	2.45E-4	4.81E-3	5.79E-5	6.30E-4	2.92E-6	-1.92E-3	3.58E-3
EP	kg PO4 3−-eq	5.51E-4	1.20E-5	3.15E-5	5.95E-4	1.16E-5	9.50E-5	1.15E-6	-2.46E-4	4.56E-4
HTP	kg 1,4-DB-eq	3.96E-1	5.87E-3	2.65E-2	4.29E-1	5.75E-3	1.65E-1	3.07E-4	-1.85E-1	4.15E-1
FAETP	kg 1,4-DB-eq	1.15E-2	1.71E-4	9.04E-4	1.26E-2	1.68E-4	2.50E-3	9.70E-5	-4.67E-3	1.07E-2
MAETP	kg 1,4-DB-eq	2.82E+1	6.17E-1	3.56E+0	3.24E+1	6.02E-1	8.50E+0	1.18E-1	-1.19E+1	2.97E+1
TETP	kg 1,4-DB-eq	2.87E-3	2.08E-5	1.97E-3	4.86E-3	2.04E-5	5.91E-4	1.03E-6	-1.56E-3	3.92E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.13E+0	1.41E-2	6.52E-2	1.21E+0	1.36E-2	3.87E-1	4.33E-3	-5.65E-1	1.05E+0
GWP-f	kg CO2 eq	1.12E+0	1.41E-2	5.01E-2	1.19E+0	1.36E-2	3.75E-1	4.33E-3	-5.88E-1	9.91E-1
GWP-b	kg CO2 eq	1.05E-2	6.49E-6	1.03E-2	2.09E-2	8.23E-6	1.19E-2	5.44E-6	2.40E-2	5.68E-2
GWP-luluc	kg CO2 eq	1.06E-3	5.15E-6	4.76E-3	5.82E-3	4.80E-6	1.70E-4	1.14E-7	-5.70E-4	5.43E-3
ODP	kg CFC11 eq	5.59E-7	3.10E-9	5.30E-9	5.67E-7	3.12E-9	4.68E-8	1.61E-10	-2.92E-7	3.26E-7
AP	mol H+ eq	5.44E-3	8.16E-5	3.06E-4	5.83E-3	7.72E-5	7.89E-4	3.91E-6	-2.32E-3	4.38E-3
EP-fw	kg P eq	5.23E-5	1.42E-7	8.78E-7	5.33E-5	1.12E-7	5.68E-6	5.13E-9	-2.38E-5	3.54E-5
EP-m	kg N eq	9.58E-4	2.87E-5	7.22E-5	1.06E-3	2.76E-5	1.91E-4	2.42E-6	-4.08E-4	8.72E-4
EP-T	mol N eq	1.01E-2	3.17E-4	7.96E-4	1.12E-2	3.04E-4	2.11E-3	1.56E-5	-4.37E-3	9.23E-3
POCP	kg NMVOC eq	3.38E-3	9.05E-5	2.27E-4	3.70E-3	8.70E-5	6.32E-4	5.37E-6	-1.49E-3	2.94E-3
ADP-mm	kg Sb eq	1.13E-3	3.56E-7	1.75E-6	1.13E-3	3.51E-7	3.12E-6	3.92E-9	-1.20E-5	1.12E-3
ADP-f	MJ	2.71E+1	2.12E-1	5.60E-1	2.79E+1	2.08E-1	2.14E+0	1.17E-2	-1.43E+1	1.60E+1
WDP	m3 depriv.	1.72E+0	7.59E-4	4.34E-1	2.16E+0	6.39E-4	8.55E-2	7.82E-5	-8.75E-1	1.37E+0
PM	disease inc.	3.63E-8	1.26E-9	3.77E-9	4.14E-8	1.22E-9	9.74E-9	8.08E-11	-1.65E-8	3.59E-8
IR	kBq U-235 eq	5.85E-2	8.89E-4	8.91E-4	6.02E-2	9.10E-4	7.57E-3	5.39E-5	-2.86E-2	4.01E-2
ETP-fw	CTUe	3.00E+1	1.89E-1	1.30E+0	3.15E+1	1.69E-1	1.68E+1	1.85E-1	-1.01E+1	3.85E+1
HTP-c	CTUh	8.80E-10	6.14E-12	4.51E-11	9.31E-10	6.01E-12	2.39E-10	3.25E-13	-3.21E-10	8.55E-10
HTP-nc	CTUh	2.90E-8	2.07E-10	1.41E-9	3.06E-8	2.01E-10	5.79E-9	3.56E-11	-1.11E-8	2.55E-8
SQP	Pt	4.53E+0	1.84E-1	4.19E-2	4.76E+0	1.78E-1	1.31E+0	3.00E-2	-6.52E+0	-2.40E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.54E+0	2.66E-3	2.72E+0	4.27E+0	2.99E-3	1.56E-1	4.37E-4	-1.52E+0	2.91E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.54E+0	2.66E-3	2.72E+0	4.27E+0	2.99E-3	1.56E-1	4.37E-4	-1.52E+0	2.91E+0
PENRE	MJ	2.91E+1	2.25E-1	6.06E-1	2.99E+1	2.21E-1	2.28E+0	1.24E-2	-1.53E+1	1.71E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.91E+1	2.25E-1	6.06E-1	2.99E+1	2.21E-1	2.28E+0	1.24E-2	-1.53E+1	1.71E+1
PET	MJ	3.07E+1	2.28E-1	3.33E+0	3.42E+1	2.24E-1	2.44E+0	1.29E-2	-1.69E+1	2.00E+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	1.94E-2	2.58E-5	1.03E-2	2.97E-2	2.35E-5	2.34E-3	1.44E-5	-9.76E-3	2.23E-2
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.60E-4	5.38E-7	5.95E-7	1.62E-4	5.32E-7	3.48E-6	1.43E-8	-1.19E-5	1.54E-4
NHWD	kg	1.06E-1	1.35E-2	9.19E-4	1.21E-1	1.29E-2	7.72E-2	5.16E-2	-4.65E-2	2.16E-1
RWD	kg	5.05E-5	1.39E-6	1.10E-6	5.30E-5	1.42E-6	8.07E-6	7.63E-8	-2.53E-5	3.73E-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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