Environmental Profile

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

Ecochain v3.5.80

Product:	3085251 - PVC Endp.Valve 90° BL 125x80 H=50 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

Results

Environmental impact SBK set 1	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
ECI	euro	0.06	0	0	0.07	0	0.02	0	-0.03	0.06
ADPE	kg Sb-eq	5.56E-4	1.84E-7	9.19E-7	5.57E-4	1.72E-7	1.57E-6	1.93E-9	-6.01E-6	5.53E-4
ADPF	kg Sb-eq	6.38E-3	5.29E-5	1.58E-4	6.59E-3	4.85E-5	5.40E-4	2.67E-6	-3.39E-3	3.79E-3
GWP	kg CO2-eq	5.53E-1	7.19E-3	3.00E-2	5.91E-1	6.61E-3	1.84E-1	1.82E-3	-2.92E-1	4.91E-1
ODP	kg CFC-11-eq	2.80E-7	1.28E-9	2.37E-9	2.84E-7	1.23E-9	2.26E-8	6.35E-11	-1.46E-7	1.62E-7
POCP	kg ethene-eq	3.39E-4	4.34E-6	1.30E-5	3.56E-4	3.96E-6	4.30E-5	4.72E-7	-1.54E-4	2.50E-4
AP	kg SO2-eq	2.27E-3	3.16E-5	1.29E-4	2.43E-3	2.84E-5	3.16E-4	1.44E-6	-1.01E-3	1.77E-3
EP	kg PO4 3−-eq	2.89E-4	6.21E-6	1.66E-5	3.12E-4	5.68E-6	4.80E-5	5.65E-7	-1.39E-4	2.27E-4
HTP	kg 1,4-DB-eq	2.00E-1	3.03E-3	1.39E-2	2.17E-1	2.83E-3	8.23E-2	1.51E-4	-9.56E-2	2.07E-1
FAETP	kg 1,4-DB-eq	6.32E-3	8.84E-5	4.75E-4	6.88E-3	8.28E-5	1.26E-3	4.77E-5	-2.80E-3	5.47E-3
MAETP	kg 1,4-DB-eq	1.43E+1	3.18E-1	1.87E+0	1.65E+1	2.96E-1	4.34E+0	5.80E-2	-6.19E+0	1.50E+1
TETP	kg 1,4-DB-eq	1.48E-3	1.07E-5	1.04E-3	2.53E-3	1.00E-5	2.92E-4	5.06E-7	-9.36E-4	1.89E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	5.73E-1	7.26E-3	3.43E-2	6.14E-1	6.67E-3	1.99E-1	2.13E-3	-2.69E-1	5.53E-1
GWP-f	kg CO2 eq	5.67E-1	7.25E-3	2.64E-2	6.01E-1	6.66E-3	1.86E-1	2.13E-3	-2.98E-1	4.97E-1
GWP-b	kg CO2 eq	5.43E-3	3.35E-6	5.44E-3	1.09E-2	4.04E-6	1.35E-2	2.67E-6	2.94E-2	5.39E-2
GWP-luluc	kg CO2 eq	6.18E-4	2.66E-6	2.50E-3	3.12E-3	2.36E-6	8.38E-5	5.58E-8	-4.03E-4	2.81E-3
ODP	kg CFC11 eq	2.77E-7	1.60E-9	2.79E-9	2.81E-7	1.53E-9	2.32E-8	7.89E-11	-1.45E-7	1.61E-7
AP	mol H+ eq	2.76E-3	4.20E-5	1.61E-4	2.96E-3	3.79E-5	3.96E-4	1.92E-6	-1.22E-3	2.18E-3
EP-fw	kg P eq	2.68E-5	7.31E-8	4.62E-7	2.73E-5	5.48E-8	2.81E-6	2.52E-9	-1.32E-5	1.70E-5
EP-m	kg N eq	5.00E-4	1.48E-5	3.80E-5	5.53E-4	1.36E-5	9.72E-5	1.19E-6	-2.20E-4	4.46E-4
EP-T	mol N eq	5.23E-3	1.63E-4	4.19E-4	5.81E-3	1.50E-4	1.07E-3	7.66E-6	-2.37E-3	4.67E-3
POCP	kg NMVOC eq	1.72E-3	4.66E-5	1.19E-4	1.89E-3	4.28E-5	3.21E-4	2.64E-6	-7.84E-4	1.47E-3
ADP-mm	kg Sb eq	5.56E-4	1.84E-7	9.19E-7	5.57E-4	1.72E-7	1.57E-6	1.93E-9	-6.01E-6	5.53E-4
ADP-f	MJ	1.36E+1	1.09E-1	2.95E-1	1.40E+1	1.02E-1	1.07E+0	5.76E-3	-7.16E+0	7.98E+0
WDP	m3 depriv.	8.52E-1	3.91E-4	2.28E-1	1.08E+0	3.14E-4	4.21E-2	3.84E-5	-4.55E-1	6.67E-1
PM	disease inc.	1.92E-8	6.51E-10	1.98E-9	2.18E-8	6.01E-10	4.91E-9	3.97E-11	-9.76E-9	1.76E-8
IR	kBq U-235 eq	2.95E-2	4.58E-4	4.68E-4	3.04E-2	4.47E-4	3.79E-3	2.65E-5	-1.51E-2	1.95E-2
ETP-fw	CTUe	1.69E+1	9.75E-2	6.84E-1	1.77E+1	8.30E-2	8.26E+0	9.11E-2	-6.31E+0	1.99E+1
HTP-c	CTUh	4.41E-10	3.16E-12	2.37E-11	4.68E-10	2.95E-12	1.20E-10	1.60E-13	-1.68E-10	4.23E-10
HTP-nc	CTUh	1.45E-8	1.07E-10	7.40E-10	1.53E-8	9.90E-11	2.87E-9	1.75E-11	-5.81E-9	1.25E-8
SQP	Pt	2.94E+0	9.49E-2	2.20E-2	3.05E+0	8.75E-2	6.52E-1	1.48E-2	-6.36E+0	-2.55E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.03E-1	1.37E-3	1.43E+0	2.34E+0	1.47E-3	7.70E-2	2.15E-4	-1.32E+0	1.10E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.03E-1	1.37E-3	1.43E+0	2.34E+0	1.47E-3	7.70E-2	2.15E-4	-1.32E+0	1.10E+0
PENRE	MJ	1.46E+1	1.16E-1	3.18E-1	1.50E+1	1.09E-1	1.14E+0	6.12E-3	-7.71E+0	8.53E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.46E+1	1.16E-1	3.18E-1	1.50E+1	1.09E-1	1.14E+0	6.12E-3	-7.71E+0	8.53E+0
PET	MJ	1.55E+1	1.17E-1	1.75E+0	1.73E+1	1.10E-1	1.21E+0	6.33E-3	-9.03E+0	9.62E+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	9.76E-3	1.33E-5	5.39E-3	1.52E-2	1.16E-5	1.15E-3	7.06E-6	-5.45E-3	1.09E-2
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.92E-5	2.77E-7	3.13E-7	7.98E-5	2.61E-7	1.75E-6	7.03E-9	-6.06E-6	7.57E-5
NHWD	kg	5.53E-2	6.94E-3	4.83E-4	6.28E-2	6.34E-3	3.86E-2	2.53E-2	-2.43E-2	1.09E-1
RWD	kg	2.56E-5	7.18E-7	5.80E-7	2.69E-5	6.95E-7	4.07E-6	3.75E-8	-1.35E-5	1.82E-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