Environmental Profile

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

Ecochain v4.3.1

Product:	3065929 - PVC Pres.P.SCS GY 110 PN10 L=3 (SI)
Unit:	1 piece
Manufacturer:	Wavin - TR - Adana
Location:	Güzelevler Mahallesi
Address:	Girne Bulvarı 294 01321 Adana Turkey

LCA standard:	EN15804+A2 (2019)
Standard database:	Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified:	Yes
Issue date:	04-10-2022
End of validity:	04-10-2027
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 - TR - Adana (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

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-f** = EF Resource use, fossils [MJ]; **ADP-mm** = EF Resource use, minerals and metals [kg Sb eq]; **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]

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.17E+1	7.65E-1	1.53E-1	1.26E+1	3.19E-1	8.51E+0	9.66E-2	-6.49E+0	1.51E+1
GWP-f	kg CO2 eq	1.16E+1	7.65E-1	1.40E-1	1.25E+1	3.19E-1	8.52E+0	9.65E-2	-6.44E+0	1.50E+1
GWP-b	kg CO2 eq	1.09E-1	-1.57E-4	1.30E-2	1.21E-1	1.94E-4	-8.59E-3	1.28E-4	-4.54E-2	6.77E-2
GWP-luluc	kg CO2 eq	9.96E-3	4.96E-4	7.42E-5	1.05E-2	1.13E-4	3.93E-3	2.61E-6	-4.21E-3	1.04E-2
ODP	kg CFC11 eq	6.57E-6	1.55E-7	1.59E-8	6.74E-6	7.35E-8	1.07E-6	3.77E-9	-3.27E-6	4.62E-6
AP	mol H+ eq	5.52E-2	2.22E-2	9.67E-4	7.84E-2	1.82E-3	1.80E-2	9.15E-5	-2.46E-2	7.38E-2
EP-fw	kg P eq	5.41E-4	3.68E-6	1.86E-5	5.63E-4	2.62E-6	1.31E-4	1.19E-7	-2.40E-4	4.57E-4
EP-m	kg N eq	9.21E-3	5.52E-3	5.99E-4	1.53E-2	6.50E-4	4.34E-3	5.61E-5	-4.25E-3	1.61E-2
EP-T	mol N eq	1.00E-1	6.13E-2	3.14E-3	1.65E-1	7.16E-3	4.79E-2	3.66E-4	-4.52E-2	1.75E-1
POCP	kg NMVOC eq	3.34E-2	1.59E-2	9.59E-4	5.03E-2	2.05E-3	1.43E-2	1.25E-4	-1.57E-2	5.11E-2
ADP-f	MJ	2.94E+2	1.00E+1	1.55E+0	3.06E+2	4.89E+0	4.94E+1	2.75E-1	-1.57E+2	2.03E+2
ADP-mm	kg Sb eq	8.55E-3	7.45E-6	6.36E-6	8.57E-3	8.25E-6	7.13E-5	9.14E-8	-1.33E-4	8.51E-3
WDP	m3 depriv.	1.98E+1	1.76E-2	7.05E-1	2.05E+1	1.50E-2	1.97E+0	1.62E-3	-9.38E+0	1.32E+1
PM	disease inc.	3.49E-7	2.93E-8	1.82E-8	3.96E-7	2.88E-8	2.23E-7	1.90E-9	-1.56E-7	4.94E-7
IR	kBq U-235 eq	6.58E-1	4.27E-2	5.26E-3	7.06E-1	2.14E-2	1.74E-1	1.27E-3	-3.02E-1	6.00E-1
ETP-fw	CTUe	2.68E+2	6.80E+0	9.95E+0	2.85E+2	3.97E+0	3.85E+2	4.27E+0	-9.04E+1	5.87E+2
HTP-c	CTUh	9.34E-9	4.20E-10	3.47E-10	1.01E-8	1.41E-10	5.34E-9	7.45E-12	-3.43E-9	1.22E-8
HTP-nc	CTUh	3.05E-7	5.83E-9	7.36E-9	3.19E-7	4.74E-9	1.33E-7	8.20E-10	-1.19E-7	3.38E-7
SQP	Pt	4.01E+1	2.40E+0	1.37E+0	4.39E+1	4.19E+0	3.04E+1	7.06E-1	-1.67E+1	6.25E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.49E+1	7.45E-2	1.29E+1	2.79E+1	7.02E-2	3.60E+0	1.03E-2	-6.81E+0	2.48E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.49E+1	7.45E-2	1.29E+1	2.79E+1	7.02E-2	3.60E+0	1.03E-2	-6.81E+0	2.48E+1
PENRE	MJ	3.16E+2	1.06E+1	1.65E+0	3.28E+2	5.20E+0	5.26E+1	2.92E-1	-1.69E+2	2.17E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.16E+2	1.06E+1	1.65E+0	3.28E+2	5.20E+0	5.26E+1	2.92E-1	-1.69E+2	2.17E+2
PET	MJ	3.31E+2	1.07E+1	1.46E+1	3.56E+2	5.27E+0	5.62E+1	3.03E-1	-1.76E+2	2.41E+2
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	2.15E-1	6.19E-4	1.66E-2	2.32E-1	5.54E-4	5.39E-2	3.38E-4	-9.79E-2	1.89E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.28E-3	1.16E-5	8.21E-6	1.30E-3	1.25E-5	7.95E-5	3.34E-7	-1.30E-4	1.26E-3
NHWD	kg	1.23E+0	1.11E-1	1.14E-1	1.46E+0	3.03E-1	1.78E+0	1.21E+0	-4.99E-1	4.26E+0
RWD	kg	5.70E-4	6.90E-5	7.18E-6	6.47E-4	3.33E-5	1.85E-4	1.79E-6	-2.66E-4	6.00E-4
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	3.09E+0	3.09E+0	0	0	0	0	3.09E+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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