

Environmental Profile

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

Ecochain v4.3.1



Product: 3050988 - PPr Clips WT 40
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					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

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]; **PENRT** = 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	4.50E-2	2.72E-3	7.58E-4	4.84E-2	7.90E-4	4.27E-2	3.71E-4	-2.26E-2	6.97E-2
GWP-f	kg CO2 eq	4.52E-2	2.71E-3	7.32E-4	4.86E-2	7.90E-4	4.05E-2	3.71E-4	-2.51E-2	6.52E-2
GWP-b	kg CO2 eq	-3.54E-4	-1.25E-7	2.56E-5	-3.28E-4	4.80E-7	2.17E-3	3.16E-7	2.45E-3	4.30E-3
GWP-luluc	kg CO2 eq	1.79E-4	1.57E-6	4.46E-7	1.81E-4	2.79E-7	4.70E-6	7.34E-9	-2.13E-5	1.64E-4
ODP	kg CFC11 eq	2.06E-9	5.63E-10	5.87E-11	2.69E-9	1.82E-10	6.90E-10	9.40E-12	-1.40E-9	2.16E-9
AP	mol H+ eq	2.68E-4	6.34E-5	4.66E-6	3.36E-4	4.50E-6	2.94E-5	2.29E-7	-6.78E-5	3.03E-4
EP-fw	kg P eq	1.19E-6	1.62E-8	5.84E-8	1.26E-6	6.50E-9	1.38E-7	3.22E-10	-4.31E-7	9.75E-7
EP-m	kg N eq	3.72E-5	1.61E-5	1.62E-6	5.50E-5	1.61E-6	9.08E-6	1.38E-7	-1.32E-5	5.26E-5
EP-T	mol N eq	3.86E-4	1.79E-4	1.10E-5	5.76E-4	1.77E-5	9.99E-5	9.17E-7	-1.47E-4	5.47E-4
POCP	kg NMVOC eq	1.58E-4	4.69E-5	3.59E-6	2.09E-4	5.07E-6	3.09E-5	3.43E-7	-5.95E-5	1.86E-4
ADP-f	MJ	1.35E+0	3.68E-2	7.27E-3	1.40E+0	1.21E-2	8.50E-2	6.90E-4	-6.95E-1	7.99E-1
ADP-mm	kg Sb eq	5.45E-7	3.67E-8	5.81E-8	6.40E-7	2.04E-8	1.11E-7	2.39E-10	-1.41E-7	6.30E-7
WDP	m3 depriv.	3.38E-2	8.21E-5	1.51E-3	3.53E-2	3.72E-5	1.59E-3	6.99E-6	-1.40E-2	2.29E-2
PM	disease inc.	1.84E-9	1.37E-10	6.39E-11	2.04E-9	7.13E-11	4.65E-10	4.75E-12	-6.86E-10	1.90E-9
IR	kBq U-235 eq	1.24E-3	1.56E-4	2.18E-5	1.42E-3	5.30E-5	2.64E-4	3.13E-6	-4.54E-4	1.28E-3
ETP-fw	CTUe	7.69E-1	2.71E-2	3.93E-2	8.36E-1	9.84E-3	1.02E-1	5.76E-4	-2.70E-1	6.79E-1
HTP-c	CTUh	2.75E-11	1.42E-12	2.39E-12	3.13E-11	3.50E-13	1.54E-11	1.95E-14	-4.91E-12	4.21E-11
HTP-nc	CTUh	4.71E-10	2.53E-11	4.22E-11	5.38E-10	1.17E-11	1.61E-10	3.87E-13	-1.42E-10	5.70E-10
SQP	Pt	2.39E-1	1.48E-2	9.70E-3	2.64E-1	1.04E-2	6.69E-2	1.75E-3	-4.70E-1	-1.27E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.78E-2	3.15E-4	1.32E-1	1.90E-1	1.74E-4	4.06E-3	2.47E-5	-8.95E-2	1.05E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.78E-2	3.15E-4	1.32E-1	1.90E-1	1.74E-4	4.06E-3	2.47E-5	-8.95E-2	1.05E-1
PENRE	MJ	1.45E+0	3.90E-2	7.73E-3	1.50E+0	1.29E-2	9.05E-2	7.32E-4	-7.51E-1	8.50E-1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.45E+0	3.90E-2	7.73E-3	1.50E+0	1.29E-2	9.05E-2	7.32E-4	-7.51E-1	8.50E-1
PET	MJ	1.51E+0	3.93E-2	1.40E-1	1.69E+0	1.30E-2	9.46E-2	7.57E-4	-8.40E-1	9.55E-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	6.57E-4	2.83E-6	3.62E-5	6.96E-4	1.37E-6	5.00E-5	8.33E-7	-2.52E-4	4.96E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.12E-6	5.67E-8	4.68E-8	1.22E-6	3.10E-8	1.49E-7	8.61E-10	-2.70E-7	1.13E-6
NHWD	kg	6.49E-3	9.06E-4	8.67E-4	8.26E-3	7.51E-4	4.88E-3	3.00E-3	-6.83E-4	1.62E-2
RWD	kg	1.21E-6	2.50E-7	2.67E-8	1.49E-6	8.24E-8	3.40E-7	4.45E-9	-4.28E-7	1.49E-6
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	3.16E-2	3.16E-2	0	0	0	0	3.16E-2
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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