Environmental Profile

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

Ecochain v4.3.1

Product:	3050912 - PPr Socket WT 25
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]

Statement of Confidentiality

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	4.84E-2	2.94E-3	8.84E-4	5.22E-2	8.96E-4	4.51E-2	4.20E-4	-2.54E-2	7.33E-2
GWP-f	kg CO2 eq	4.86E-2	2.94E-3	8.54E-4	5.24E-2	8.95E-4	4.35E-2	4.20E-4	-2.72E-2	7.00E-2
GWP-b	kg CO2 eq	-3.44E-4	-2.31E-7	2.98E-5	-3.15E-4	5.43E-7	1.62E-3	3.60E-7	1.81E-3	3.12E-3
GWP-luluc	kg CO2 eq	1.76E-4	1.74E-6	5.21E-7	1.79E-4	3.17E-7	5.26E-6	8.17E-9	-1.74E-5	1.67E-4
ODP	kg CFC11 eq	2.06E-9	6.07E-10	6.85E-11	2.73E-9	2.06E-10	7.49E-10	1.06E-11	-1.45E-9	2.25E-9
AP	mol H+ eq	2.79E-4	7.20E-5	5.43E-6	3.57E-4	5.10E-6	3.20E-5	2.58E-7	-7.17E-5	3.22E-4
EP-fw	kg P eq	1.21E-6	1.69E-8	6.82E-8	1.29E-6	7.36E-9	1.53E-7	3.61E-10	-4.03E-7	1.05E-6
EP-m	kg N eq	3.85E-5	1.82E-5	1.89E-6	5.86E-5	1.82E-6	9.79E-6	1.58E-7	-1.37E-5	5.67E-5
EP-T	mol N eq	4.02E-4	2.02E-4	1.28E-5	6.17E-4	2.01E-5	1.08E-4	1.04E-6	-1.53E-4	5.94E-4
POCP	kg NMVOC eq	1.69E-4	5.29E-5	4.18E-6	2.26E-4	5.75E-6	3.35E-5	3.88E-7	-6.37E-5	2.02E-4
ADP-f	MJ	1.49E+0	3.95E-2	8.48E-3	1.54E+0	1.37E-2	9.41E-2	7.80E-4	-7.66E-1	8.79E-1
ADP-mm	kg Sb eq	5.91E-7	3.75E-8	6.78E-8	6.96E-7	2.32E-8	1.21E-7	2.68E-10	-1.53E-7	6.87E-7
WDP	m3 depriv.	3.64E-2	8.46E-5	1.76E-3	3.82E-2	4.22E-5	1.78E-3	7.40E-6	-1.45E-2	2.56E-2
PM	disease inc.	1.91E-9	1.41E-10	7.46E-11	2.13E-9	8.08E-11	5.09E-10	5.37E-12	-6.84E-10	2.04E-9
IR	kBq U-235 eq	1.28E-3	1.68E-4	2.55E-5	1.48E-3	6.00E-5	2.90E-4	3.56E-6	-4.51E-4	1.38E-3
ETP-fw	CTUe	7.11E-1	2.87E-2	4.59E-2	7.85E-1	1.12E-2	1.12E-1	6.52E-4	-2.32E-1	6.77E-1
HTP-c	CTUh	2.81E-11	1.55E-12	2.79E-12	3.24E-11	3.97E-13	1.66E-11	2.16E-14	-4.95E-12	4.44E-11
HTP-nc	CTUh	4.87E-10	2.64E-11	4.93E-11	5.63E-10	1.33E-11	1.77E-10	4.36E-13	-1.41E-10	6.11E-10
SQP	Pt	2.19E-1	1.46E-2	1.13E-2	2.45E-1	1.18E-2	7.44E-2	1.99E-3	-3.59E-1	-2.58E-2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.45E-2	3.30E-4	1.54E-1	2.09E-1	1.97E-4	4.53E-3	2.83E-5	-6.99E-2	1.44E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.45E-2	3.30E-4	1.54E-1	2.09E-1	1.97E-4	4.53E-3	2.83E-5	-6.99E-2	1.44E-1
PENRE	MJ	1.60E+0	4.20E-2	9.01E-3	1.65E+0	1.46E-2	1.00E-1	8.28E-4	-8.28E-1	9.35E-1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.60E+0	4.20E-2	9.01E-3	1.65E+0	1.46E-2	1.00E-1	8.28E-4	-8.28E-1	9.35E-1
PET	MJ	1.65E+0	4.23E-2	1.63E-1	1.86E+0	1.48E-2	1.05E-1	8.56E-4	-8.98E-1	1.08E+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	6.91E-4	2.93E-6	4.22E-5	7.36E-4	1.55E-6	5.54E-5	9.45E-7	-2.49E-4	5.46E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.12E-6	5.80E-8	5.46E-8	1.23E-6	3.51E-8	1.63E-7	9.70E-10	-2.79E-7	1.15E-6
NHWD	kg	6.53E-3	8.69E-4	1.01E-3	8.41E-3	8.51E-4	5.33E-3	3.40E-3	-6.93E-4	1.73E-2
RWD	kg	1.24E-6	2.70E-7	3.12E-8	1.54E-6	9.34E-8	3.72E-7	5.05E-9	-4.23E-7	1.59E-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	3.69E-2	3.69E-2	0	0	0	0	3.69E-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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