Environmental Profile

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

Ecochain v4.3.1

Product:	3040355 - PPr Socket GY 75
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	4.78E-1	3.46E-2	1.36E-2	5.26E-1	1.14E-2	3.92E-1	5.36E-3	-2.67E-1	6.67E-1
GWP-f	kg CO2 eq	4.76E-1	3.46E-2	1.31E-2	5.23E-1	1.14E-2	3.73E-1	5.36E-3	-2.87E-1	6.26E-1
GWP-b	kg CO2 eq	1.69E-3	-6.26E-6	4.58E-4	2.14E-3	6.91E-6	1.83E-2	4.66E-6	2.05E-2	4.09E-2
GWP-luluc	kg CO2 eq	2.53E-4	2.21E-5	8.00E-6	2.83E-4	4.02E-6	6.53E-5	9.26E-8	-2.01E-4	1.52E-4
ODP	kg CFC11 eq	1.14E-8	7.05E-9	1.05E-9	1.95E-8	2.62E-9	8.99E-9	1.35E-10	-1.25E-8	1.87E-8
AP	mol H+ eq	1.77E-3	9.74E-4	8.34E-5	2.83E-3	6.48E-5	3.75E-4	3.21E-6	-8.51E-4	2.42E-3
EP-fw	kg P eq	8.48E-6	1.73E-7	1.05E-6	9.70E-6	9.36E-8	1.90E-6	4.23E-9	-4.78E-6	6.91E-6
EP-m	kg N eq	3.12E-4	2.43E-4	2.91E-5	5.84E-4	2.32E-5	1.12E-4	2.08E-6	-1.57E-4	5.64E-4
EP-T	mol N eq	3.48E-3	2.70E-3	1.97E-4	6.37E-3	2.55E-4	1.23E-3	1.30E-5	-1.75E-3	6.12E-3
POCP	kg NMVOC eq	1.50E-3	7.02E-4	6.43E-5	2.27E-3	7.30E-5	3.86E-4	4.89E-6	-7.46E-4	1.98E-3
ADP-f	MJ	1.62E+1	4.55E-1	1.30E-1	1.68E+1	1.75E-1	1.15E+0	9.83E-3	-8.72E+0	9.43E+0
ADP-mm	kg Sb eq	7.43E-6	3.57E-7	1.04E-6	8.83E-6	2.94E-7	1.48E-6	3.25E-9	-1.90E-6	8.71E-6
WDP	m3 depriv.	3.30E-1	8.36E-4	2.71E-2	3.58E-1	5.36E-4	2.22E-2	5.46E-5	-1.76E-1	2.05E-1
PM	disease inc.	1.61E-8	1.39E-9	1.15E-9	1.86E-8	1.03E-9	6.12E-9	6.76E-11	-8.25E-9	1.76E-8
IR	kBq U-235 eq	9.44E-3	1.94E-3	3.91E-4	1.18E-2	7.63E-4	3.54E-3	4.55E-5	-5.25E-3	1.09E-2
ETP-fw	CTUe	5.36E+0	3.13E-1	7.05E-1	6.38E+0	1.42E-1	1.34E+0	8.22E-3	-2.66E+0	5.20E+0
HTP-c	CTUh	1.21E-10	1.89E-11	4.29E-11	1.83E-10	5.04E-12	1.65E-10	2.44E-13	-5.72E-11	2.95E-10
HTP-nc	CTUh	3.35E-9	2.73E-10	7.56E-10	4.38E-9	1.69E-10	1.98E-9	5.32E-12	-1.68E-9	4.85E-9
SQP	Pt	1.52E+0	1.21E-1	1.74E-1	1.82E+0	1.49E-1	9.13E-1	2.52E-2	-4.07E+0	-1.16E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.26E-1	3.47E-3	2.37E+0	2.80E+0	2.50E-3	5.61E-2	3.78E-4	-8.00E-1	2.06E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.26E-1	3.47E-3	2.37E+0	2.80E+0	2.50E-3	5.61E-2	3.78E-4	-8.00E-1	2.06E+0
PENRE	MJ	1.74E+1	4.83E-1	1.38E-1	1.80E+1	1.85E-1	1.23E+0	1.04E-2	-9.40E+0	1.01E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.74E+1	4.83E-1	1.38E-1	1.80E+1	1.85E-1	1.23E+0	1.04E-2	-9.40E+0	1.01E+1
PET	MJ	1.78E+1	4.86E-1	2.51E+0	2.08E+1	1.88E-1	1.29E+0	1.08E-2	-1.02E+1	1.21E+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	5.28E-3	2.93E-5	6.49E-4	5.96E-3	1.98E-5	6.63E-4	1.21E-5	-2.97E-3	3.68E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.49E-6	5.56E-7	8.38E-7	3.89E-6	4.46E-7	1.93E-6	1.19E-8	-2.41E-6	3.86E-6
NHWD	kg	2.32E-2	6.03E-3	1.55E-2	4.48E-2	1.08E-2	5.80E-2	4.32E-2	-8.17E-3	1.49E-1
RWD	kg	8.32E-6	3.13E-6	4.79E-7	1.19E-5	1.19E-6	4.51E-6	6.41E-8	-4.81E-6	1.29E-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	5.67E-1	5.67E-1	0	0	0	0	5.67E-1
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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