

Environmental Profile

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

Ecochain v4.3.1



Product: 3040180 - PPr Tee GY 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

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	2.30E-1	1.61E-2	6.06E-3	2.52E-1	5.11E-3	2.01E-1	2.41E-3	-1.25E-1	3.35E-1
GWP-f	kg CO2 eq	2.29E-1	1.61E-2	5.85E-3	2.51E-1	5.11E-3	1.90E-1	2.41E-3	-1.38E-1	3.11E-1
GWP-b	kg CO2 eq	4.76E-4	-2.56E-6	2.05E-4	6.78E-4	3.10E-6	1.08E-2	2.09E-6	1.22E-2	2.37E-2
GWP-luluc	kg CO2 eq	1.40E-4	1.01E-5	3.57E-6	1.54E-4	1.81E-6	2.96E-5	4.15E-8	-1.11E-4	7.41E-5
ODP	kg CFC11 eq	5.80E-9	3.30E-9	4.69E-10	9.57E-9	1.18E-9	4.17E-9	6.04E-11	-6.54E-9	8.44E-9
AP	mol H+ eq	8.66E-4	4.42E-4	3.73E-5	1.35E-3	2.91E-5	1.75E-4	1.44E-6	-4.02E-4	1.15E-3
EP-fw	kg P eq	4.40E-6	8.31E-8	4.68E-7	4.95E-6	4.20E-8	8.63E-7	1.89E-9	-2.42E-6	3.44E-6
EP-m	kg N eq	1.56E-4	1.10E-4	1.30E-5	2.79E-4	1.04E-5	5.27E-5	9.34E-7	-7.55E-5	2.67E-4
EP-T	mol N eq	1.72E-3	1.23E-3	8.80E-5	3.04E-3	1.15E-4	5.80E-4	5.85E-6	-8.43E-4	2.90E-3
POCP	kg NMVOC eq	7.36E-4	3.20E-4	2.87E-5	1.08E-3	3.28E-5	1.81E-4	2.20E-6	-3.51E-4	9.50E-4
ADP-f	MJ	7.69E+0	2.13E-1	5.81E-2	7.96E+0	7.84E-2	5.28E-1	4.41E-3	-4.07E+0	4.51E+0
ADP-mm	kg Sb eq	3.43E-6	1.75E-7	4.65E-7	4.06E-6	1.32E-7	6.83E-7	1.46E-9	-8.76E-7	4.01E-6
WDP	m3 depriv.	1.59E-1	4.06E-4	1.21E-2	1.71E-1	2.41E-4	1.01E-2	2.40E-5	-8.36E-2	9.79E-2
PM	disease inc.	7.91E-9	6.76E-10	5.12E-10	9.10E-9	4.61E-10	2.83E-9	3.03E-11	-4.01E-9	8.41E-9
IR	kBq U-235 eq	4.71E-3	9.09E-4	1.75E-4	5.80E-3	3.43E-4	1.63E-3	2.04E-5	-2.58E-3	5.21E-3
ETP-fw	CTUe	2.93E+0	1.49E-1	3.15E-1	3.40E+0	6.37E-2	6.21E-1	3.69E-3	-1.43E+0	2.65E+0
HTP-c	CTUh	5.92E-11	8.74E-12	1.91E-11	8.71E-11	2.27E-12	7.73E-11	1.09E-13	-2.79E-11	1.39E-10
HTP-nc	CTUh	1.64E-9	1.31E-10	3.38E-10	2.11E-9	7.59E-11	9.22E-10	2.38E-12	-8.21E-10	2.29E-9
SQP	Pt	8.55E-1	6.16E-2	7.76E-2	9.94E-1	6.71E-2	4.17E-1	1.13E-2	-2.36E+0	-8.75E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.30E-1	1.66E-3	1.06E+0	1.29E+0	1.12E-3	2.55E-2	1.70E-4	-4.57E-1	8.59E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.30E-1	1.66E-3	1.06E+0	1.29E+0	1.12E-3	2.55E-2	1.70E-4	-4.57E-1	8.59E-1
PENRE	MJ	8.25E+0	2.26E-1	6.18E-2	8.54E+0	8.32E-2	5.63E-1	4.68E-3	-4.39E+0	4.80E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.25E+0	2.26E-1	6.18E-2	8.54E+0	8.32E-2	5.63E-1	4.68E-3	-4.39E+0	4.80E+0
PET	MJ	8.48E+0	2.28E-1	1.12E+0	9.83E+0	8.43E-2	5.88E-1	4.85E-3	-4.84E+0	5.66E+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	2.63E-3	1.42E-5	2.90E-4	2.93E-3	8.87E-6	3.05E-4	5.43E-6	-1.46E-3	1.79E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.23E-6	2.72E-7	3.74E-7	1.87E-6	2.00E-7	8.94E-7	5.33E-9	-1.26E-6	1.72E-6
NHWD	kg	1.19E-2	3.23E-3	6.94E-3	2.20E-2	4.86E-3	2.74E-2	1.94E-2	-3.96E-3	6.98E-2
RWD	kg	4.15E-6	1.46E-6	2.14E-7	5.83E-6	5.33E-7	2.08E-6	2.88E-8	-2.39E-6	6.09E-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	2.53E-1	2.53E-1	0	0	0	0	2.53E-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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