

Environmental Profile

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

Ecochain v4.3.1



Product: 3050952 - PPr Elbow 90°WT 125
 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

This document and supporting material contain confidential and proprietary business information of Wavin - TR - Adana. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - TR - Adana.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.60E+0	2.65E-1	1.04E-1	3.97E+0	8.66E-2	2.82E+0	4.08E-2	-1.98E+0	4.92E+0
GWP-f	kg CO2 eq	3.58E+0	2.65E-1	1.00E-1	3.95E+0	8.65E-2	2.68E+0	4.08E-2	-2.13E+0	4.62E+0
GWP-b	kg CO2 eq	1.56E-2	-4.88E-5	3.50E-3	1.90E-2	5.25E-5	1.34E-1	3.55E-5	1.50E-1	3.04E-1
GWP-luluc	kg CO2 eq	1.97E-3	1.69E-4	6.10E-5	2.20E-3	3.06E-5	4.95E-4	6.94E-7	-1.49E-3	1.24E-3
ODP	kg CFC11 eq	8.58E-8	5.40E-8	8.02E-9	1.48E-7	1.99E-8	6.78E-8	1.02E-9	-9.00E-8	1.47E-7
AP	mol H+ eq	1.46E-2	7.49E-3	6.36E-4	2.27E-2	4.93E-4	2.83E-3	2.44E-5	-6.41E-3	1.96E-2
EP-fw	kg P eq	6.41E-5	1.31E-6	7.99E-6	7.34E-5	7.12E-7	1.44E-5	3.18E-8	-3.58E-5	5.27E-5
EP-m	kg N eq	2.36E-3	1.87E-3	2.22E-4	4.44E-3	1.76E-4	8.37E-4	1.59E-5	-1.18E-3	4.29E-3
EP-T	mol N eq	2.59E-2	2.07E-2	1.50E-3	4.81E-2	1.94E-3	9.20E-3	9.91E-5	-1.31E-2	4.62E-2
POCP	kg NMVOC eq	1.13E-2	5.40E-3	4.90E-4	1.72E-2	5.55E-4	2.90E-3	3.72E-5	-5.62E-3	1.51E-2
ADP-f	MJ	1.23E+2	3.48E+0	9.93E-1	1.27E+2	1.33E+0	8.74E+0	7.47E-2	-6.55E+1	7.18E+1
ADP-mm	kg Sb eq	4.70E-5	2.71E-6	7.94E-6	5.77E-5	2.24E-6	1.12E-5	2.46E-8	-1.44E-5	5.68E-5
WDP	m3 depriv.	2.52E+0	6.35E-3	2.06E-1	2.73E+0	4.07E-3	1.68E-1	3.78E-4	-1.33E+0	1.58E+0
PM	disease inc.	1.22E-7	1.06E-8	8.74E-9	1.42E-7	7.81E-9	4.62E-8	5.13E-10	-6.21E-8	1.34E-7
IR	kBq U-235 eq	7.20E-2	1.48E-2	2.98E-3	8.98E-2	5.80E-3	2.67E-2	3.46E-4	-3.93E-2	8.34E-2
ETP-fw	CTUe	3.96E+1	2.39E+0	5.38E+0	4.74E+1	1.08E+0	1.01E+1	6.25E-2	-1.98E+1	3.89E+1
HTP-c	CTUh	1.13E-9	1.45E-10	3.27E-10	1.60E-9	3.84E-11	1.21E-9	1.83E-12	-4.29E-10	2.42E-9
HTP-nc	CTUh	2.62E-8	2.08E-9	5.77E-9	3.40E-8	1.29E-9	1.48E-8	4.02E-11	-1.26E-8	3.75E-8
SQP	Pt	1.14E+1	9.12E-1	1.33E+0	1.36E+1	1.14E+0	6.91E+0	1.92E-1	-2.99E+1	-8.08E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.20E+0	2.64E-2	1.81E+1	2.13E+1	1.90E-2	4.25E-1	2.89E-3	-5.91E+0	1.58E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.20E+0	2.64E-2	1.81E+1	2.13E+1	1.90E-2	4.25E-1	2.89E-3	-5.91E+0	1.58E+1
PENRE	MJ	1.32E+2	3.69E+0	1.06E+0	1.36E+2	1.41E+0	9.31E+0	7.92E-2	-7.06E+1	7.66E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.32E+2	3.69E+0	1.06E+0	1.36E+2	1.41E+0	9.31E+0	7.92E-2	-7.06E+1	7.66E+1
PET	MJ	1.35E+2	3.72E+0	1.91E+1	1.58E+2	1.43E+0	9.73E+0	8.21E-2	-7.65E+1	9.24E+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	4.04E-2	2.22E-4	4.95E-3	4.55E-2	1.50E-4	5.01E-3	9.20E-5	-2.24E-2	2.84E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.89E-5	4.22E-6	6.39E-6	2.95E-5	3.40E-6	1.45E-5	9.00E-8	-1.74E-5	3.01E-5
NHWD	kg	2.32E-1	4.50E-2	1.19E-1	3.95E-1	8.23E-2	4.33E-1	3.29E-1	-6.14E-2	1.18E+0
RWD	kg	6.42E-5	2.39E-5	3.65E-6	9.18E-5	9.03E-6	3.41E-5	4.87E-7	-3.60E-5	9.94E-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	4.32E+0	4.32E+0	0	0	0	0	4.32E+0
EET	MJ	0	0	0	0	0	0	0	0	0
EEE	MJ	0	0	0	0	0	0	0	0	0



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777