

Environmental Profile

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

Ecochain v4.3.1



Product: 3040128 - PPr Elbow 90°GY 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					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]

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	5.68E-2	3.78E-3	1.33E-3	6.19E-2	1.16E-3	5.34E-2	5.45E-4	-3.12E-2	8.59E-2
GWP-f	kg CO2 eq	5.68E-2	3.78E-3	1.28E-3	6.18E-2	1.16E-3	5.13E-2	5.45E-4	-3.36E-2	8.12E-2
GWP-b	kg CO2 eq	-2.39E-5	-4.74E-7	4.48E-5	2.04E-5	7.03E-7	2.16E-3	4.72E-7	2.42E-3	4.60E-3
GWP-luluc	kg CO2 eq	3.45E-5	2.32E-6	7.81E-7	3.76E-5	4.10E-7	6.77E-6	9.70E-9	-2.30E-5	2.18E-5
ODP	kg CFC11 eq	1.53E-9	7.76E-10	1.03E-10	2.41E-9	2.67E-10	9.59E-10	1.37E-11	-1.72E-9	1.93E-9
AP	mol H+ eq	2.22E-4	9.89E-5	8.15E-6	3.29E-4	6.60E-6	4.07E-5	3.29E-7	-9.18E-5	2.85E-4
EP-fw	kg P eq	1.16E-6	2.04E-8	1.02E-7	1.28E-6	9.53E-9	1.97E-7	4.39E-10	-5.25E-7	9.64E-7
EP-m	kg N eq	3.92E-5	2.48E-5	2.84E-6	6.69E-5	2.36E-6	1.24E-5	2.10E-7	-1.74E-5	6.44E-5
EP-T	mol N eq	4.38E-4	2.76E-4	1.92E-5	7.34E-4	2.60E-5	1.36E-4	1.33E-6	-1.94E-4	7.03E-4
POCP	kg NMVOC eq	1.86E-4	7.20E-5	6.28E-6	2.64E-4	7.44E-6	4.25E-5	4.99E-7	-8.11E-5	2.33E-4
ADP-f	MJ	1.85E+0	5.03E-2	1.27E-2	1.91E+0	1.78E-2	1.21E-1	1.00E-3	-9.64E-1	1.08E+0
ADP-mm	kg Sb eq	9.50E-7	4.39E-8	1.02E-7	1.10E-6	3.00E-8	1.56E-7	3.35E-10	-1.98E-7	1.08E-6
WDP	m3 depriv.	3.97E-2	1.01E-4	2.64E-3	4.25E-2	5.46E-5	2.30E-3	6.51E-6	-1.87E-2	2.61E-2
PM	disease inc.	1.99E-9	1.68E-10	1.12E-10	2.27E-9	1.05E-10	6.52E-10	6.90E-12	-8.87E-10	2.14E-9
IR	kBq U-235 eq	1.20E-3	2.14E-4	3.82E-5	1.46E-3	7.77E-5	3.72E-4	4.62E-6	-5.79E-4	1.33E-3
ETP-fw	CTUe	7.16E-1	3.56E-2	6.88E-2	8.20E-1	1.44E-2	1.43E-1	8.39E-4	-3.03E-1	6.75E-1
HTP-c	CTUh	1.55E-11	2.02E-12	4.19E-12	2.17E-11	5.14E-13	1.91E-11	2.56E-14	-6.33E-12	3.50E-11
HTP-nc	CTUh	4.26E-10	3.20E-11	7.39E-11	5.32E-10	1.72E-11	2.19E-10	5.47E-13	-1.83E-10	5.86E-10
SQP	Pt	2.05E-1	1.62E-2	1.70E-2	2.38E-1	1.52E-2	9.55E-2	2.57E-3	-4.77E-1	-1.25E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.52E-2	4.03E-4	2.31E-1	2.87E-1	2.55E-4	5.83E-3	3.80E-5	-9.28E-2	2.00E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.52E-2	4.03E-4	2.31E-1	2.87E-1	2.55E-4	5.83E-3	3.80E-5	-9.28E-2	2.00E-1
PENRE	MJ	1.98E+0	5.34E-2	1.35E-2	2.05E+0	1.89E-2	1.29E-1	1.06E-3	-1.04E+0	1.15E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.98E+0	5.34E-2	1.35E-2	2.05E+0	1.89E-2	1.29E-1	1.06E-3	-1.04E+0	1.15E+0
PET	MJ	2.04E+0	5.38E-2	2.45E-1	2.33E+0	1.91E-2	1.35E-1	1.10E-3	-1.13E+0	1.35E+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	6.89E-4	3.50E-6	6.34E-5	7.56E-4	2.01E-6	7.08E-5	1.23E-6	-3.22E-4	5.08E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.18E-7	6.82E-8	8.19E-8	4.68E-7	4.55E-8	2.06E-7	1.22E-9	-3.31E-7	3.90E-7
NHWD	kg	3.17E-3	9.06E-4	1.52E-3	5.60E-3	1.10E-3	6.63E-3	4.40E-3	-8.90E-4	1.68E-2
RWD	kg	1.05E-6	3.44E-7	4.67E-8	1.44E-6	1.21E-7	4.77E-7	6.53E-9	-5.41E-7	1.51E-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	5.53E-2	5.53E-2	0	0	0	0	5.53E-2
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