

Environmental Profile

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

Ecochain v4.3.1



Product: 3050945 - PPr Elbow 45°WT 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					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]

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	7.64E-1	5.51E-2	2.12E-2	8.40E-1	1.78E-2	6.18E-1	8.39E-3	-4.18E-1	1.07E+0
GWP-f	kg CO2 eq	7.61E-1	5.50E-2	2.04E-2	8.37E-1	1.78E-2	5.88E-1	8.39E-3	-4.52E-1	9.99E-1
GWP-b	kg CO2 eq	2.47E-3	-9.68E-6	7.14E-4	3.18E-3	1.08E-5	3.01E-2	7.30E-6	3.38E-2	6.71E-2
GWP-luluc	kg CO2 eq	5.55E-4	3.50E-5	1.25E-5	6.02E-4	6.30E-6	1.02E-4	1.43E-7	-3.26E-4	3.85E-4
ODP	kg CFC11 eq	1.91E-8	1.12E-8	1.64E-9	3.20E-8	4.10E-9	1.41E-8	2.10E-10	-1.99E-8	3.05E-8
AP	mol H+ eq	3.14E-3	1.54E-3	1.30E-4	4.81E-3	1.01E-4	5.90E-4	5.02E-6	-1.34E-3	4.16E-3
EP-fw	kg P eq	1.41E-5	2.77E-7	1.63E-6	1.60E-5	1.46E-7	2.97E-6	6.57E-9	-7.63E-6	1.15E-5
EP-m	kg N eq	5.10E-4	3.84E-4	4.53E-5	9.39E-4	3.63E-5	1.76E-4	3.26E-6	-2.48E-4	9.06E-4
EP-T	mol N eq	5.58E-3	4.27E-3	3.07E-4	1.02E-2	4.00E-4	1.93E-3	2.04E-5	-2.77E-3	9.74E-3
POCP	kg NMVOC eq	2.43E-3	1.11E-3	1.00E-4	3.64E-3	1.14E-4	6.07E-4	7.65E-6	-1.17E-3	3.20E-3
ADP-f	MJ	2.58E+1	7.24E-1	2.03E-1	2.67E+1	2.73E-1	1.81E+0	1.54E-2	-1.37E+1	1.51E+1
ADP-mm	kg Sb eq	9.90E-6	5.75E-7	1.62E-6	1.21E-5	4.60E-7	2.32E-6	5.07E-9	-2.98E-6	1.19E-5
WDP	m3 depriv.	5.36E-1	1.34E-3	4.22E-2	5.80E-1	8.38E-4	3.47E-2	7.99E-5	-2.77E-1	3.38E-1
PM	disease inc.	2.63E-8	2.23E-9	1.79E-9	3.03E-8	1.61E-9	9.62E-9	1.06E-10	-1.31E-8	2.86E-8
IR	kBq U-235 eq	1.57E-2	3.09E-3	6.09E-4	1.94E-2	1.19E-3	5.55E-3	7.12E-5	-8.32E-3	1.79E-2
ETP-fw	CTUe	8.85E+0	5.00E-1	1.10E+0	1.05E+1	2.22E-1	2.11E+0	1.29E-2	-4.30E+0	8.49E+0
HTP-c	CTUh	2.45E-10	3.00E-11	6.68E-11	3.42E-10	7.89E-12	2.55E-10	3.77E-13	-9.07E-11	5.15E-10
HTP-nc	CTUh	5.65E-9	4.37E-10	1.18E-9	7.27E-9	2.64E-10	3.10E-9	8.29E-12	-2.67E-9	7.97E-9
SQP	Pt	2.58E+0	1.97E-1	2.71E-1	3.04E+0	2.34E-1	1.43E+0	3.94E-2	-6.68E+0	-1.93E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.10E-1	5.55E-3	3.69E+0	4.40E+0	3.92E-3	8.79E-2	5.94E-4	-1.31E+0	3.19E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.10E-1	5.55E-3	3.69E+0	4.40E+0	3.92E-3	8.79E-2	5.94E-4	-1.31E+0	3.19E+0
PENRE	MJ	2.77E+1	7.69E-1	2.16E-1	2.87E+1	2.90E-1	1.93E+0	1.63E-2	-1.48E+1	1.62E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.77E+1	7.69E-1	2.16E-1	2.87E+1	2.90E-1	1.93E+0	1.63E-2	-1.48E+1	1.62E+1
PET	MJ	2.84E+1	7.75E-1	3.90E+0	3.31E+1	2.94E-1	2.02E+0	1.69E-2	-1.61E+1	1.93E+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	8.74E-3	4.69E-5	1.01E-3	9.80E-3	3.09E-5	1.04E-3	1.89E-5	-4.72E-3	6.17E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.72E-6	8.94E-7	1.31E-6	6.92E-6	6.99E-7	3.03E-6	1.85E-8	-3.84E-6	6.83E-6
NHWD	kg	5.10E-2	9.91E-3	2.42E-2	8.52E-2	1.69E-2	9.11E-2	6.77E-2	-1.29E-2	2.48E-1
RWD	kg	1.40E-5	4.98E-6	7.46E-7	1.97E-5	1.86E-6	7.09E-6	1.00E-7	-7.65E-6	2.11E-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	8.83E-1	8.83E-1	0	0	0	0	8.83E-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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