

Environmental Profile

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

Ecochain v4.3.1



Product: 3051004 - PPr Tee WT 110
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	3.20E+0	2.36E-1	9.14E-2	3.53E+0	7.65E-2	2.52E+0	3.60E-2	-1.75E+0	4.42E+0
GWP-f	kg CO2 eq	3.19E+0	2.36E-1	8.83E-2	3.51E+0	7.64E-2	2.39E+0	3.60E-2	-1.90E+0	4.11E+0
GWP-b	kg CO2 eq	1.37E-2	-4.21E-5	3.09E-3	1.68E-2	4.64E-5	1.35E-1	3.14E-5	1.51E-1	3.03E-1
GWP-luluc	kg CO2 eq	1.87E-3	1.50E-4	5.39E-5	2.07E-3	2.70E-5	4.38E-4	6.13E-7	-1.44E-3	1.10E-3
ODP	kg CFC11 eq	7.83E-8	4.81E-8	7.08E-9	1.34E-7	1.76E-8	6.04E-8	9.03E-10	-8.13E-8	1.31E-7
AP	mol H+ eq	1.30E-2	6.63E-3	5.62E-4	2.02E-2	4.35E-4	2.52E-3	2.15E-5	-5.75E-3	1.74E-2
EP-fw	kg P eq	5.81E-5	1.18E-6	7.05E-6	6.63E-5	6.29E-7	1.27E-5	2.81E-8	-3.32E-5	4.65E-5
EP-m	kg N eq	2.12E-3	1.65E-3	1.96E-4	3.97E-3	1.56E-4	7.47E-4	1.40E-5	-1.06E-3	3.82E-3
EP-T	mol N eq	2.32E-2	1.84E-2	1.33E-3	4.29E-2	1.72E-3	8.21E-3	8.75E-5	-1.18E-2	4.11E-2
POCP	kg NMVOC eq	1.01E-2	4.78E-3	4.33E-4	1.53E-2	4.90E-4	2.58E-3	3.28E-5	-5.02E-3	1.34E-2
ADP-f	MJ	1.09E+2	3.10E+0	8.77E-1	1.13E+2	1.17E+0	7.75E+0	6.59E-2	-5.81E+1	6.37E+1
ADP-mm	kg Sb eq	4.18E-5	2.45E-6	7.01E-6	5.13E-5	1.98E-6	9.97E-6	2.17E-8	-1.28E-5	5.05E-5
WDP	m3 depriv.	2.24E+0	5.73E-3	1.82E-1	2.43E+0	3.60E-3	1.49E-1	3.34E-4	-1.20E+0	1.38E+0
PM	disease inc.	1.10E-7	9.52E-9	7.72E-9	1.27E-7	6.90E-9	4.11E-8	4.53E-10	-5.66E-8	1.19E-7
IR	kBq U-235 eq	6.47E-2	1.32E-2	2.63E-3	8.06E-2	5.13E-3	2.38E-2	3.06E-4	-3.59E-2	7.39E-2
ETP-fw	CTUe	3.74E+1	2.14E+0	4.75E+0	4.43E+1	9.52E-1	9.01E+0	5.52E-2	-1.89E+1	3.55E+1
HTP-c	CTUh	1.01E-9	1.29E-10	2.89E-10	1.43E-9	3.39E-11	1.08E-9	1.61E-12	-3.90E-10	2.15E-9
HTP-nc	CTUh	2.35E-8	1.87E-9	5.09E-9	3.04E-8	1.14E-9	1.32E-8	3.55E-11	-1.15E-8	3.32E-8
SQP	Pt	1.08E+1	8.34E-1	1.17E+0	1.28E+1	1.00E+0	6.13E+0	1.69E-1	-2.97E+1	-9.60E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.99E+0	2.37E-2	1.59E+1	1.90E+1	1.68E-2	3.77E-1	2.55E-3	-5.82E+0	1.35E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.99E+0	2.37E-2	1.59E+1	1.90E+1	1.68E-2	3.77E-1	2.55E-3	-5.82E+0	1.35E+1
PENRE	MJ	1.17E+2	3.30E+0	9.32E-1	1.21E+2	1.24E+0	8.26E+0	7.00E-2	-6.26E+1	6.80E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.17E+2	3.30E+0	9.32E-1	1.21E+2	1.24E+0	8.26E+0	7.00E-2	-6.26E+1	6.80E+1
PET	MJ	1.20E+2	3.32E+0	1.69E+1	1.40E+2	1.26E+0	8.64E+0	7.25E-2	-6.84E+1	8.15E+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	3.60E-2	2.00E-4	4.37E-3	4.06E-2	1.33E-4	4.44E-3	8.13E-5	-2.04E-2	2.48E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.72E-5	3.81E-6	5.64E-6	2.66E-5	3.00E-6	1.29E-5	7.95E-8	-1.57E-5	2.70E-5
NHWD	kg	2.09E-1	4.18E-2	1.05E-1	3.55E-1	7.27E-2	3.84E-1	2.91E-1	-5.57E-2	1.05E+0
RWD	kg	5.78E-5	2.14E-5	3.22E-6	8.23E-5	7.97E-6	3.04E-5	4.30E-7	-3.29E-5	8.82E-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	3.82E+0	3.82E+0	0	0	0	0	3.82E+0
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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