

Environmental Profile

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

Ecochain v3.5.64



Product: 3003842 - PE Eccentric Reducer 63x56
Unit: 1 piece
Manufacturer: Wavin - IT - SM Maddalena

LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified: Yes
Issue date: 24-11-2022
End of validity: 24-11-2027
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 - IT - SM Maddalena (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 Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF 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-mm** = EF Resource use, minerals and metals [kg Sb eq]; **ADP-f** = EF Resource use, fossils [MJ]; **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 - IT - SM Maddalena. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - IT - SM Maddalena.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	8.45E-2	1.15E-2	6.75E-3	1.03E-1	1.19E-3	5.66E-2	6.56E-4	-5.84E-2	1.03E-1
GWP-f	kg CO2 eq	9.86E-2	1.15E-2	5.78E-3	1.16E-1	1.18E-3	3.91E-2	6.56E-4	-6.45E-2	9.23E-2
GWP-b	kg CO2 eq	-1.42E-2	6.52E-6	4.88E-4	-1.37E-2	7.19E-7	1.75E-2	4.93E-7	6.18E-3	9.97E-3
GWP-luluc	kg CO2 eq	7.11E-5	4.22E-6	4.88E-4	5.63E-4	4.19E-7	6.86E-6	9.42E-9	-6.50E-5	5.05E-4
ODP	kg CFC11 eq	6.01E-9	2.63E-9	5.80E-10	9.23E-9	2.73E-10	9.70E-10	1.40E-11	-3.53E-9	6.95E-9
AP	mol H+ eq	3.88E-4	8.06E-5	2.33E-5	4.92E-4	6.75E-6	4.01E-5	3.34E-7	-2.07E-4	3.32E-4
EP-fw	kg P eq	2.01E-6	9.21E-8	8.98E-8	2.20E-6	9.75E-9	2.00E-7	4.34E-10	-1.38E-6	1.02E-6
EP-m	kg N eq	7.18E-5	2.69E-5	3.94E-6	1.03E-4	2.41E-6	1.20E-5	2.36E-7	-4.04E-5	7.68E-5
EP-T	mol N eq	7.92E-4	2.96E-4	4.42E-5	1.13E-3	2.66E-5	1.32E-4	1.36E-6	-4.55E-4	8.37E-4
POCP	kg NMVOC eq	3.42E-4	8.33E-5	1.37E-5	4.39E-4	7.61E-6	4.13E-5	5.32E-7	-1.90E-4	2.98E-4
ADP-mm	kg Sb eq	1.34E-6	2.87E-7	1.41E-7	1.77E-6	3.06E-8	1.59E-7	3.35E-10	-4.59E-7	1.50E-6
ADP-f	MJ	3.33E+0	1.75E-1	7.61E-2	3.58E+0	1.82E-2	1.22E-1	1.02E-3	-1.87E+0	1.86E+0
WDP	m3 depriv.	7.18E-2	5.25E-4	2.69E-2	9.93E-2	5.58E-5	2.32E-3	4.68E-6	-4.42E-2	5.74E-2
PM	disease inc.	4.06E-9	1.00E-9	2.33E-10	5.30E-9	1.07E-10	6.53E-10	7.02E-12	-2.16E-9	3.90E-9
IR	kBq U-235 eq	3.17E-3	7.65E-4	7.09E-5	4.00E-3	7.95E-5	3.79E-4	4.76E-6	-1.56E-3	2.90E-3
ETP-fw	CTUe	1.45E+0	1.41E-1	1.20E-1	1.71E+0	1.48E-2	1.43E-1	9.01E-4	-7.99E-1	1.07E+0
HTP-c	CTUh	3.54E-11	5.15E-12	6.40E-12	4.70E-11	5.25E-13	1.66E-11	2.48E-14	-2.13E-11	4.29E-11
HTP-nc	CTUh	7.27E-10	1.66E-10	1.33E-10	1.03E-9	1.76E-11	2.08E-10	5.73E-13	-4.45E-10	8.07E-10
SQP	Pt	1.63E+0	1.45E-1	1.39E-2	1.79E+0	1.56E-2	9.64E-2	2.62E-3	-2.24E+0	-3.34E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.84E-1	2.45E-3	2.63E-1	5.49E-1	2.61E-4	5.91E-3	4.05E-5	-3.89E-1	1.67E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.84E-1	2.45E-3	2.63E-1	5.49E-1	2.61E-4	5.91E-3	4.05E-5	-3.89E-1	1.67E-1
PENRE	MJ	3.57E+0	1.86E-1	8.30E-2	3.84E+0	1.93E-2	1.30E-1	1.08E-3	-2.01E+0	1.98E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.57E+0	1.86E-1	8.30E-2	3.84E+0	1.93E-2	1.30E-1	1.08E-3	-2.01E+0	1.98E+0
PET	MJ	3.85E+0	1.88E-1	3.46E-1	4.39E+0	1.96E-2	1.36E-1	1.13E-3	-2.40E+0	2.14E+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	1.15E-3	1.93E-5	6.39E-4	1.81E-3	2.06E-6	6.95E-5	1.26E-6	-7.83E-4	1.09E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.18E-7	4.36E-7	7.39E-8	1.23E-6	4.65E-8	2.06E-7	1.23E-9	-6.81E-7	8.01E-7
NHWD	kg	5.37E-3	1.04E-2	7.20E-4	1.65E-2	1.13E-3	5.98E-3	4.50E-3	-2.52E-3	2.56E-2
RWD	kg	3.45E-6	1.19E-6	7.89E-8	4.73E-6	1.24E-7	4.85E-7	6.69E-9	-1.48E-6	3.86E-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	0	0	0	0	0	0	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