

Environmental Profile

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

Ecochain v3.5.64



Product: 3003823 - PE Eccentric Reducer 63x50
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

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	6.83E-2	9.52E-3	5.55E-3	8.34E-2	9.75E-4	4.98E-2	5.40E-4	-4.78E-2	8.68E-2
GWP-f	kg CO2 eq	8.25E-2	9.51E-3	4.75E-3	9.68E-2	9.74E-4	3.23E-2	5.40E-4	-5.40E-2	7.65E-2
GWP-b	kg CO2 eq	-1.43E-2	5.39E-6	4.01E-4	-1.38E-2	5.91E-7	1.75E-2	4.05E-7	6.22E-3	9.85E-3
GWP-luluc	kg CO2 eq	6.62E-5	3.49E-6	4.01E-4	4.71E-4	3.45E-7	5.68E-6	7.74E-9	-6.26E-5	4.14E-4
ODP	kg CFC11 eq	5.13E-9	2.18E-9	4.77E-10	7.78E-9	2.24E-10	8.16E-10	1.15E-11	-3.03E-9	5.81E-9
AP	mol H+ eq	3.27E-4	6.66E-5	1.92E-5	4.13E-4	5.55E-6	3.36E-5	2.75E-7	-1.78E-4	2.74E-4
EP-fw	kg P eq	1.75E-6	7.62E-8	7.38E-8	1.90E-6	8.01E-9	1.66E-7	3.57E-10	-1.25E-6	8.17E-7
EP-m	kg N eq	6.16E-5	2.22E-5	3.24E-6	8.71E-5	1.99E-6	1.01E-5	1.94E-7	-3.51E-5	6.42E-5
EP-T	mol N eq	6.78E-4	2.45E-4	3.64E-5	9.59E-4	2.19E-5	1.11E-4	1.12E-6	-3.96E-4	6.97E-4
POCP	kg NMVOC eq	2.88E-4	6.89E-5	1.13E-5	3.68E-4	6.25E-6	3.48E-5	4.37E-7	-1.63E-4	2.47E-4
ADP-mm	kg Sb eq	1.13E-6	2.37E-7	1.16E-7	1.48E-6	2.52E-8	1.33E-7	2.76E-10	-3.91E-7	1.25E-6
ADP-f	MJ	2.76E+0	1.45E-1	6.25E-2	2.97E+0	1.50E-2	1.02E-1	8.41E-4	-1.55E+0	1.53E+0
WDP	m3 depriv.	5.96E-2	4.34E-4	2.21E-2	8.21E-2	4.59E-5	1.92E-3	3.85E-6	-3.81E-2	4.60E-2
PM	disease inc.	3.48E-9	8.31E-10	1.92E-10	4.50E-9	8.79E-11	5.46E-10	5.77E-12	-1.93E-9	3.21E-9
IR	kBq U-235 eq	2.67E-3	6.32E-4	5.83E-5	3.36E-3	6.53E-5	3.17E-4	3.92E-6	-1.37E-3	2.38E-3
ETP-fw	CTUe	1.34E+0	1.17E-1	9.87E-2	1.56E+0	1.21E-2	1.20E-1	7.41E-4	-7.53E-1	9.38E-1
HTP-c	CTUh	3.08E-11	4.26E-12	5.26E-12	4.03E-11	4.32E-13	1.39E-11	2.04E-14	-1.91E-11	3.56E-11
HTP-nc	CTUh	6.22E-10	1.37E-10	1.09E-10	8.68E-10	1.45E-11	1.73E-10	4.71E-13	-3.96E-10	6.60E-10
SQP	Pt	1.60E+0	1.20E-1	1.14E-2	1.74E+0	1.28E-2	8.00E-2	2.16E-3	-2.23E+0	-3.96E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.74E-1	2.03E-3	2.16E-1	4.93E-1	2.14E-4	4.89E-3	3.33E-5	-3.84E-1	1.14E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.74E-1	2.03E-3	2.16E-1	4.93E-1	2.14E-4	4.89E-3	3.33E-5	-3.84E-1	1.14E-1
PENRE	MJ	2.96E+0	1.54E-1	6.82E-2	3.18E+0	1.59E-2	1.09E-1	8.92E-4	-1.67E+0	1.64E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.96E+0	1.54E-1	6.82E-2	3.18E+0	1.59E-2	1.09E-1	8.92E-4	-1.67E+0	1.64E+0
PET	MJ	3.23E+0	1.56E-1	2.85E-1	3.67E+0	1.61E-2	1.13E-1	9.25E-4	-2.06E+0	1.75E+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	9.60E-4	1.60E-5	5.26E-4	1.50E-3	1.69E-6	5.76E-5	1.04E-6	-6.90E-4	8.72E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.29E-7	3.60E-7	6.08E-8	1.05E-6	3.82E-8	1.73E-7	1.01E-9	-5.88E-7	6.74E-7
NHWD	kg	4.73E-3	8.62E-3	5.92E-4	1.39E-2	9.27E-4	4.97E-3	3.70E-3	-2.27E-3	2.13E-2
RWD	kg	2.92E-6	9.86E-7	6.49E-8	3.97E-6	1.02E-7	4.07E-7	5.50E-9	-1.31E-6	3.18E-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



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