

Environmental Profile

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

Ecochain v3.5.64



Product: 3070632 - PE Eccentric Reducer S12,5 250x200
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	4.23E+0	5.20E-1	3.14E-1	5.06E+0	5.51E-2	1.79E+0	3.05E-2	-2.76E+0	4.18E+0
GWP-f	kg CO2 eq	4.21E+0	5.19E-1	2.68E-1	5.00E+0	5.50E-2	1.79E+0	3.05E-2	-2.75E+0	4.13E+0
GWP-b	kg CO2 eq	2.10E-2	2.94E-4	2.27E-2	4.39E-2	3.34E-5	-2.20E-3	2.29E-5	-1.04E-2	3.14E-2
GWP-luluc	kg CO2 eq	1.28E-3	1.91E-4	2.27E-2	2.41E-2	1.95E-5	3.09E-4	4.37E-7	-6.26E-4	2.38E-2
ODP	kg CFC11 eq	2.31E-7	1.19E-7	2.69E-8	3.77E-7	1.27E-8	4.02E-8	6.50E-10	-1.32E-7	2.99E-7
AP	mol H+ eq	1.59E-2	3.66E-3	1.08E-3	2.06E-2	3.13E-4	1.69E-3	1.55E-5	-7.61E-3	1.50E-2
EP-fw	kg P eq	7.03E-5	4.16E-6	4.17E-6	7.86E-5	4.53E-7	8.92E-6	2.01E-8	-3.43E-5	5.37E-5
EP-m	kg N eq	2.65E-3	1.22E-3	1.83E-4	4.05E-3	1.12E-4	4.92E-4	1.10E-5	-1.39E-3	3.27E-3
EP-T	mol N eq	3.00E-2	1.34E-2	2.05E-3	4.55E-2	1.24E-3	5.41E-3	6.30E-5	-1.55E-2	3.67E-2
POCP	kg NMVOC eq	1.41E-2	3.78E-3	6.38E-4	1.85E-2	3.53E-4	1.71E-3	2.47E-5	-7.22E-3	1.33E-2
ADP-mm	kg Sb eq	5.70E-5	1.29E-5	6.54E-6	7.65E-5	1.42E-6	6.69E-6	1.56E-8	-1.78E-5	6.68E-5
ADP-f	MJ	1.49E+2	7.91E+0	3.53E+0	1.60E+2	8.44E-1	5.36E+0	4.75E-2	-8.25E+1	8.41E+1
WDP	m3 depriv.	3.21E+0	2.37E-2	1.25E+0	4.48E+0	2.59E-3	1.05E-1	2.17E-4	-1.60E+0	2.99E+0
PM	disease inc.	1.52E-7	4.53E-8	1.08E-8	2.08E-7	4.97E-9	2.78E-8	3.26E-10	-6.02E-8	1.81E-7
IR	kBq U-235 eq	1.29E-1	3.45E-2	3.30E-3	1.67E-1	3.69E-3	1.61E-2	2.21E-4	-4.98E-2	1.37E-1
ETP-fw	CTUe	2.78E+1	6.36E+0	5.57E+0	3.97E+1	6.86E-1	6.08E+0	4.19E-2	-1.20E+1	3.46E+1
HTP-c	CTUh	1.20E-9	2.33E-10	2.97E-10	1.73E-9	2.44E-11	7.22E-10	1.15E-12	-5.70E-10	1.91E-9
HTP-nc	CTUh	2.74E-8	7.50E-9	6.16E-9	4.10E-8	8.17E-10	9.13E-9	2.66E-11	-1.27E-8	3.82E-8
SQP	Pt	6.69E+0	6.53E+0	6.43E-1	1.39E+1	7.22E-1	4.28E+0	1.22E-1	-2.62E+0	1.64E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.42E+0	1.11E-1	1.22E+1	1.47E+1	1.21E-2	2.65E-1	1.88E-3	-1.19E+0	1.38E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.42E+0	1.11E-1	1.22E+1	1.47E+1	1.21E-2	2.65E-1	1.88E-3	-1.19E+0	1.38E+1
PENRE	MJ	1.60E+2	8.39E+0	3.85E+0	1.72E+2	8.97E-1	5.71E+0	5.04E-2	-8.90E+1	8.96E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.60E+2	8.39E+0	3.85E+0	1.72E+2	8.97E-1	5.71E+0	5.04E-2	-8.90E+1	8.96E+1
PET	MJ	1.62E+2	8.51E+0	1.61E+1	1.87E+2	9.09E-1	5.98E+0	5.23E-2	-9.02E+1	1.03E+2
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	4.87E-2	8.73E-4	2.97E-2	7.92E-2	9.56E-5	3.10E-3	5.87E-5	-2.45E-2	5.80E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.33E-5	1.97E-5	3.43E-6	4.64E-5	2.16E-6	8.73E-6	5.70E-8	-2.42E-5	3.32E-5
NHWD	kg	1.67E-1	4.70E-1	3.35E-2	6.71E-1	5.23E-2	2.63E-1	2.09E-1	-6.72E-2	1.13E+0
RWD	kg	1.41E-4	5.38E-5	3.66E-6	1.98E-4	5.74E-6	2.05E-5	3.11E-7	-4.62E-5	1.79E-4
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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