

Environmental Profile

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

Ecochain v3.5.64



Product: 3003807 - PE Concentric Reducer S12,5 110x50

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]

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.70E-1	2.28E-2	1.34E-2	2.06E-1	2.34E-3	1.14E-1	1.30E-3	-1.14E-1	2.10E-1
GWP-f	kg CO2 eq	1.98E-1	2.28E-2	1.14E-2	2.33E-1	2.34E-3	7.77E-2	1.30E-3	-1.30E-1	1.84E-1
GWP-b	kg CO2 eq	-2.83E-2	1.29E-5	9.65E-4	-2.73E-2	1.42E-6	3.65E-2	9.75E-7	1.59E-2	2.51E-2
GWP-luluc	kg CO2 eq	1.61E-4	8.37E-6	9.65E-4	1.13E-3	8.29E-7	1.37E-5	1.86E-8	-1.55E-4	9.95E-4
ODP	kg CFC11 eq	1.23E-8	5.23E-9	1.15E-9	1.87E-8	5.40E-10	1.97E-9	2.77E-11	-7.26E-9	1.40E-8
AP	mol H+ eq	7.85E-4	1.60E-4	4.61E-5	9.91E-4	1.33E-5	8.10E-5	6.61E-7	-4.27E-4	6.59E-4
EP-fw	kg P eq	4.21E-6	1.83E-7	1.78E-7	4.57E-6	1.93E-8	3.99E-7	8.58E-10	-3.06E-6	1.93E-6
EP-m	kg N eq	1.48E-4	5.33E-5	7.79E-6	2.09E-4	4.77E-6	2.43E-5	4.67E-7	-8.40E-5	1.55E-4
EP-T	mol N eq	1.63E-3	5.88E-4	8.75E-5	2.30E-3	5.26E-5	2.68E-4	2.68E-6	-9.48E-4	1.68E-3
POCP	kg NMVOC eq	6.90E-4	1.65E-4	2.72E-5	8.82E-4	1.50E-5	8.39E-5	1.05E-6	-3.88E-4	5.94E-4
ADP-mm	kg Sb eq	2.70E-6	5.69E-7	2.78E-7	3.55E-6	6.06E-8	3.22E-7	6.63E-10	-9.32E-7	3.00E-6
ADP-f	MJ	6.63E+0	3.47E-1	1.50E-1	7.13E+0	3.60E-2	2.45E-1	2.02E-3	-3.73E+0	3.69E+0
WDP	m3 depriv.	1.43E-1	1.04E-3	5.32E-2	1.98E-1	1.10E-4	4.62E-3	9.26E-6	-9.27E-2	1.10E-1
PM	disease inc.	8.32E-9	1.99E-9	4.62E-10	1.08E-8	2.11E-10	1.32E-9	1.39E-11	-4.63E-9	7.69E-9
IR	kBq U-235 eq	6.42E-3	1.52E-3	1.40E-4	8.08E-3	1.57E-4	7.64E-4	9.42E-6	-3.32E-3	5.69E-3
ETP-fw	CTUe	3.33E+0	2.80E-1	2.37E-1	3.84E+0	2.92E-2	2.90E-1	1.78E-3	-1.86E+0	2.30E+0
HTP-c	CTUh	7.20E-11	1.02E-11	1.27E-11	9.49E-11	1.04E-12	3.34E-11	4.91E-14	-4.43E-11	8.51E-11
HTP-nc	CTUh	1.49E-9	3.30E-10	2.62E-10	2.08E-9	3.48E-11	4.18E-10	1.13E-12	-9.54E-10	1.58E-9
SQP	Pt	3.40E+0	2.87E-1	2.74E-2	3.71E+0	3.08E-2	1.92E-1	5.19E-3	-5.11E+0	-1.17E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.96E-1	4.87E-3	5.20E-1	1.12E+0	5.16E-4	1.18E-2	8.00E-5	-8.93E-1	2.41E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.96E-1	4.87E-3	5.20E-1	1.12E+0	5.16E-4	1.18E-2	8.00E-5	-8.93E-1	2.41E-1
PENRE	MJ	7.11E+0	3.69E-1	1.64E-1	7.65E+0	3.82E-2	2.61E-1	2.15E-3	-4.02E+0	3.93E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	7.11E+0	3.69E-1	1.64E-1	7.65E+0	3.82E-2	2.61E-1	2.15E-3	-4.02E+0	3.93E+0
PET	MJ	7.71E+0	3.74E-1	6.84E-1	8.77E+0	3.87E-2	2.73E-1	2.23E-3	-4.91E+0	4.17E+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	2.31E-3	3.84E-5	1.26E-3	3.62E-3	4.07E-6	1.39E-4	2.50E-6	-1.69E-3	2.07E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.49E-6	8.65E-7	1.46E-7	2.50E-6	9.20E-8	4.17E-7	2.43E-9	-1.39E-6	1.62E-6
NHWD	kg	1.13E-2	2.07E-2	1.42E-3	3.34E-2	2.23E-3	1.20E-2	8.91E-3	-5.29E-3	5.12E-2
RWD	kg	7.00E-6	2.36E-6	1.56E-7	9.52E-6	2.45E-7	9.82E-7	1.32E-8	-3.15E-6	7.61E-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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