

Environmental Profile

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

Ecochain v3.5.64



Product: 3080089 - AS+ Repaircoupler DN 125
 Unit: 1 piece
 Manufacturer: Wavin Germany Twist
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 Germany
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LCA standard: EN15804+A2 (2019)
 Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
 Externally verified: Yes
 Issue date: 08-04-2022
 End of validity: 08-04-2027
 Verifier: Harry van Ewijk - SGS Search



This LCA was evaluated according to EN15804+A2. It was concluded that the LCA complies with this standard.

Wavin AS+ is a mineral-reinforced polypropylene (PP) low noise soil and waste solution. The AS+ has a unique material composition for optimal noise reduction.

The LCA background information and project dossier have been registered in the online Ecochain application in the account Wavin Germany Twist (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

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
 A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
 B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
 C4 Disposal

Benefits and loads beyond the system boundaries

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	9.97E-1	3.24E-2	4.29E-2	1.07E+0	1.39E-2	5.85E-1	3.32E-3	-5.65E-1	1.11E+0
GWP-f	kg CO2 eq	1.00E+0	3.24E-2	3.49E-2	1.07E+0	1.39E-2	5.60E-1	3.32E-3	-6.17E-1	1.03E+0
GWP-b	kg CO2 eq	-3.91E-3	1.50E-5	5.23E-3	1.34E-3	8.45E-6	2.51E-2	5.92E-6	5.20E-2	7.84E-2
GWP-luluc	kg CO2 eq	9.25E-4	1.19E-5	2.68E-3	3.62E-3	4.93E-6	1.10E-4	1.21E-7	-4.96E-4	3.24E-3
ODP	kg CFC11 eq	1.04E-7	7.15E-9	3.99E-9	1.15E-7	3.21E-9	2.64E-8	1.75E-10	-2.55E-8	1.20E-7
AP	mol H+ eq	4.62E-3	1.88E-4	1.68E-4	4.98E-3	7.93E-5	6.46E-4	4.19E-6	-1.96E-3	3.74E-3
EP-fw	kg P eq	2.87E-5	3.27E-7	5.32E-7	2.95E-5	1.15E-7	5.51E-6	5.50E-9	-1.15E-5	2.37E-5
EP-m	kg N eq	8.59E-4	6.62E-5	4.41E-5	9.69E-4	2.84E-5	1.72E-4	3.07E-6	-3.57E-4	8.15E-4
EP-T	mol N eq	9.66E-3	7.30E-4	4.66E-4	1.09E-2	3.13E-4	1.90E-3	1.70E-5	-3.99E-3	9.09E-3
POCP	kg NMVOC eq	3.45E-3	2.08E-4	1.34E-4	3.79E-3	8.94E-5	5.77E-4	5.52E-6	-1.70E-3	2.76E-3
ADP-mm	kg Sb eq	1.29E-4	8.21E-7	7.19E-7	1.30E-4	3.60E-7	2.21E-6	4.23E-9	-6.74E-6	1.26E-4
ADP-f	MJ	2.22E+1	4.89E-1	4.41E-1	2.32E+1	2.14E-1	1.94E+0	1.28E-2	-1.93E+1	5.97E+0
WDP	m3 depriv.	9.26E-1	1.75E-3	2.61E-1	1.19E+0	6.56E-4	4.52E-2	7.28E-5	-4.10E-1	8.25E-1
PM	disease inc.	4.48E-8	2.91E-9	2.28E-9	5.00E-8	1.26E-9	1.01E-8	8.79E-11	-1.96E-8	4.19E-8
IR	kBq U-235 eq	4.61E-2	2.05E-3	5.88E-4	4.88E-2	9.34E-4	6.85E-3	5.90E-5	-1.27E-2	4.39E-2
ETP-fw	CTUe	2.08E+2	4.36E-1	6.71E-1	2.09E+2	1.74E-1	4.79E+0	1.21E-2	-6.52E+0	2.07E+2
HTP-c	CTUh	4.18E-10	1.41E-11	2.88E-11	4.61E-10	6.17E-12	2.56E-10	3.17E-13	-1.33E-10	5.90E-10
HTP-nc	CTUh	9.84E-8	4.77E-10	7.07E-10	9.96E-8	2.07E-10	3.41E-9	6.78E-12	-3.96E-9	9.92E-8
SQP	Pt	5.46E+0	4.24E-1	4.28E-2	5.92E+0	1.83E-1	1.34E+0	3.28E-2	-1.02E+1	-2.73E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.22E+0	6.12E-3	1.45E+0	2.67E+0	3.07E-3	1.71E-1	4.86E-4	-2.00E+0	8.47E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.22E+0	6.12E-3	1.45E+0	2.67E+0	3.07E-3	1.71E-1	4.86E-4	-2.00E+0	8.47E-1
PENRE	MJ	2.38E+1	5.19E-1	4.80E-1	2.48E+1	2.27E-1	2.07E+0	1.36E-2	-2.08E+1	6.25E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.38E+1	5.19E-1	4.80E-1	2.48E+1	2.27E-1	2.07E+0	1.36E-2	-2.08E+1	6.25E+0
PET	MJ	2.50E+1	5.25E-1	1.93E+0	2.74E+1	2.30E-1	2.24E+0	1.40E-2	-2.28E+1	7.10E+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	2.14E-2	5.95E-5	6.16E-3	2.76E-2	2.42E-5	1.53E-3	1.57E-5	-7.04E-3	2.22E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.16E-5	1.24E-6	5.41E-7	1.34E-5	5.46E-7	4.36E-6	1.55E-8	-4.73E-6	1.36E-5
NHWD	kg	9.07E-2	3.10E-2	2.21E-3	1.24E-1	1.32E-2	9.58E-2	5.63E-2	-1.92E-2	2.70E-1
RWD	kg	5.32E-5	3.21E-6	7.75E-7	5.72E-5	1.45E-6	8.65E-6	8.33E-8	-1.18E-5	5.56E-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	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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