

Environmental Profile

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

Ecochain v3.5.80



Product: 3003083 - Wadal PVC Solv.Cement Coupler GY 32
Unit: 1 piece
Manufacturer: Wavin - PL -Buk - Extra products

100% recycled and 100% recyclable plastic (PP).

LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified: Yes
Issue date: 08-06-2023
End of validity: 08-06-2028
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 - PL -Buk - Extra products (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 EN15804+A2 Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF EN15804+A2 Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF EN15804+A2 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	6.30E-2	9.70E-4	1.45E-4	6.41E-2	9.44E-4	7.12E-2	3.08E-4	-5.03E-2	8.63E-2
GWP-f	kg CO2 eq	9.56E-2	9.69E-4	1.46E-4	9.67E-2	9.44E-4	3.69E-2	3.08E-4	-5.22E-2	8.27E-2
GWP-b	kg CO2 eq	-3.27E-2	5.89E-7	-1.54E-6	-3.27E-2	5.73E-7	3.43E-2	3.74E-7	1.97E-3	3.57E-3
GWP-luluc	kg CO2 eq	1.08E-4	3.43E-7	1.49E-7	1.09E-4	3.34E-7	1.16E-5	8.48E-9	-5.77E-5	6.33E-5
ODP	kg CFC11 eq	3.98E-8	2.23E-10	8.26E-12	4.01E-8	2.17E-10	3.19E-9	1.12E-11	-2.16E-8	2.19E-8
AP	mol H+ eq	4.71E-4	5.52E-6	1.47E-6	4.78E-4	5.38E-6	5.69E-5	2.75E-7	-1.99E-4	3.42E-4
EP-fw	kg P eq	4.30E-6	7.98E-9	8.24E-9	4.32E-6	7.77E-9	3.89E-7	3.75E-10	-1.91E-6	2.80E-6
EP-m	kg N eq	8.55E-5	1.98E-6	1.55E-7	8.76E-5	1.92E-6	1.44E-5	1.65E-7	-3.86E-5	6.56E-5
EP-T	mol N eq	9.47E-4	2.18E-5	1.85E-6	9.70E-4	2.12E-5	1.59E-4	1.09E-6	-4.22E-4	7.29E-4
POCP	kg NMVOC eq	3.19E-4	6.22E-6	6.28E-7	3.26E-4	6.06E-6	4.73E-5	3.77E-7	-1.46E-4	2.34E-4
ADP-mm	kg Sb eq	9.87E-5	2.51E-8	1.97E-8	9.87E-5	2.44E-8	2.20E-7	2.81E-10	-9.20E-7	9.81E-5
ADP-f	MJ	2.26E+0	1.49E-2	1.36E-3	2.27E+0	1.45E-2	1.51E-1	8.21E-4	-1.18E+0	1.26E+0
WDP	m3 depriv.	1.30E-1	4.57E-5	5.22E-5	1.30E-1	4.45E-5	5.77E-3	7.45E-6	-6.32E-2	7.30E-2
PM	disease inc.	3.73E-9	8.75E-11	9.08E-12	3.83E-9	8.52E-11	7.08E-10	5.66E-12	-1.81E-9	2.82E-9
IR	kBq U-235 eq	4.85E-3	6.50E-5	1.02E-6	4.91E-3	6.33E-5	5.36E-4	3.74E-6	-2.26E-3	3.25E-3
ETP-fw	CTUe	2.76E+0	1.21E-2	1.21E-2	2.78E+0	1.18E-2	1.12E+0	1.22E-2	-8.76E-1	3.04E+0
HTP-c	CTUh	9.35E-11	4.30E-13	6.17E-13	9.45E-11	4.19E-13	1.95E-11	2.41E-14	-3.51E-11	7.94E-11
HTP-nc	CTUh	2.52E-9	1.44E-11	1.57E-11	2.55E-9	1.40E-11	4.09E-10	2.38E-12	-8.41E-10	2.14E-9
SQP	Pt	3.19E+0	1.27E-2	2.24E-3	3.21E+0	1.24E-2	9.45E-2	2.09E-3	-2.85E+0	4.71E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.42E-1	2.13E-4	2.40E-2	6.66E-1	2.08E-4	1.07E-2	2.95E-5	-4.66E-1	2.11E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.42E-1	2.13E-4	2.40E-2	6.66E-1	2.08E-4	1.07E-2	2.95E-5	-4.66E-1	2.11E-1
PENRE	MJ	2.42E+0	1.58E-2	1.44E-3	2.44E+0	1.54E-2	1.61E-1	8.72E-4	-1.28E+0	1.34E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.42E+0	1.58E-2	1.44E-3	2.44E+0	1.54E-2	1.61E-1	8.72E-4	-1.28E+0	1.34E+0
PET	MJ	3.06E+0	1.60E-2	2.55E-2	3.10E+0	1.56E-2	1.72E-1	9.01E-4	-1.74E+0	1.55E+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	1.66E-3	1.68E-6	1.46E-6	1.67E-3	1.64E-6	1.60E-4	9.96E-7	-7.39E-4	1.09E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.40E-5	3.81E-8	2.73E-13	1.41E-5	3.70E-8	2.52E-7	1.02E-9	-1.17E-6	1.32E-5
NHWD	kg	1.08E-2	9.22E-4	1.05E-6	1.17E-2	8.98E-4	6.07E-3	3.59E-3	-4.64E-3	1.76E-2
RWD	kg	4.31E-6	1.01E-7	1.10E-13	4.41E-6	9.85E-8	5.83E-7	5.31E-9	-2.08E-6	3.01E-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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