Environmental Profile

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

Ecochain v3.5.80

Product:	3080535 - Wadal PVC Solv.Cement Coupler WT 40
Unit:	1 piece
Manufacturer:	Wavin - PL -Buk - Extra products

With Wadal you opt for a tensile-resistant system whose connections cannot slide apart. There is a solution for every indoor drainage situation, thanks to the very extensive range of PVC adhesive fittings and pipes. KOMO certified.

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

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 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]

Statement of Confidentiality

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	8.47E-2	1.50E-4	1.45E-4	8.50E-2	1.16E-3	8.06E-2	3.62E-4	-6.04E-2	1.07E-1
GWP-f	kg CO2 eq	1.17E-1	1.50E-4	1.46E-4	1.18E-1	1.15E-3	4.55E-2	3.62E-4	-6.42E-2	1.00E-1
GWP-b	kg CO2 eq	-3.27E-2	9.09E-8	-1.54E-6	-3.27E-2	7.01E-7	3.51E-2	4.65E-7	3.90E-3	6.39E-3
GWP-luluc	kg CO2 eq	1.24E-4	5.30E-8	1.49E-7	1.24E-4	4.09E-7	1.50E-5	9.30E-9	-7.75E-5	6.20E-5
ODP	kg CFC11 eq	5.25E-8	3.45E-11	8.26E-12	5.26E-8	2.66E-10	4.20E-9	1.36E-11	-2.65E-8	3.06E-8
AP	mol H+ eq	5.39E-4	8.53E-7	1.47E-6	5.41E-4	6.58E-6	7.30E-5	3.31E-7	-2.44E-4	3.77E-4
EP-fw	kg P eq	4.99E-6	1.23E-9	8.24E-9	5.00E-6	9.50E-9	5.03E-7	4.25E-10	-2.42E-6	3.09E-6
EP-m	kg N eq	9.78E-5	3.05E-7	1.55E-7	9.83E-5	2.35E-6	1.83E-5	2.08E-7	-4.71E-5	7.21E-5
EP-T	mol N eq	1.05E-3	3.36E-6	1.85E-6	1.06E-3	2.59E-5	2.02E-4	1.32E-6	-5.15E-4	7.73E-4
POCP	kg NMVOC eq	3.71E-4	9.61E-7	6.28E-7	3.72E-4	7.41E-6	6.01E-5	4.54E-7	-1.76E-4	2.65E-4
ADP-mm	kg Sb eq	3.01E-6	3.87E-9	1.97E-8	3.04E-6	2.99E-8	2.82E-7	3.29E-10	-1.12E-6	2.23E-6
ADP-f	MJ	2.86E+0	2.30E-3	1.36E-3	2.87E+0	1.77E-2	1.92E-1	9.96E-4	-1.45E+0	1.62E+0
WDP	m3 depriv.	1.65E-1	7.05E-6	5.22E-5	1.65E-1	5.44E-5	7.55E-3	5.37E-6	-7.92E-2	9.35E-2
PM	disease inc.	4.36E-9	1.35E-11	9.08E-12	4.38E-9	1.04E-10	8.94E-10	6.86E-12	-2.22E-9	3.17E-9
IR	kBq U-235 eq	5.76E-3	1.00E-5	1.02E-6	5.77E-3	7.74E-5	6.86E-4	4.60E-6	-2.81E-3	3.72E-3
ETP-fw	CTUe	2.47E+0	1.87E-3	1.21E-2	2.49E+0	1.44E-2	1.49E+0	1.64E-2	-1.15E+0	2.85E+0
HTP-c	CTUh	8.80E-11	6.64E-14	6.17E-13	8.86E-11	5.12E-13	2.22E-11	2.68E-14	-4.11E-11	7.03E-11
HTP-nc	CTUh	2.42E-9	2.22E-12	1.57E-11	2.44E-9	1.72E-11	5.24E-10	3.12E-12	-1.05E-9	1.94E-9
SQP	Pt	3.32E+0	1.97E-3	2.24E-3	3.33E+0	1.52E-2	1.18E-1	2.56E-3	-3.23E+0	2.31E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.53E-1	3.30E-5	2.40E-2	7.77E-1	2.54E-4	1.38E-2	3.78E-5	-5.40E-1	2.50E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.53E-1	3.30E-5	2.40E-2	7.77E-1	2.54E-4	1.38E-2	3.78E-5	-5.40E-1	2.50E-1
PENRE	MJ	3.07E+0	2.44E-3	1.44E-3	3.08E+0	1.88E-2	2.05E-1	1.06E-3	-1.57E+0	1.73E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.07E+0	2.44E-3	1.44E-3	3.08E+0	1.88E-2	2.05E-1	1.06E-3	-1.57E+0	1.73E+0
PET	MJ	3.82E+0	2.47E-3	2.55E-2	3.85E+0	1.91E-2	2.18E-1	1.09E-3	-2.11E+0	1.98E+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	1.96E-3	2.60E-7	1.46E-6	1.96E-3	2.01E-6	2.09E-4	1.23E-6	-9.52E-4	1.22E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.28E-6	5.88E-9	2.73E-13	2.29E-6	4.53E-8	3.19E-7	1.20E-9	-1.42E-6	1.24E-6
NHWD	kg	1.24E-2	1.42E-4	1.05E-6	1.26E-2	1.10E-3	7.53E-3	4.39E-3	-5.51E-3	2.01E-2
RWD	kg	5.17E-6	1.56E-8	1.10E-13	5.19E-6	1.20E-7	7.40E-7	6.49E-9	-2.58E-6	3.47E-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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