Environmental Profile

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

Ecochain v3.5.80

Product:	3003204 - Wadal PVC Cleaning Rod GY 125 S/SP
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	1.62E+0	2.30E-2	1.45E-4	1.64E+0	2.05E-2	9.39E-1	6.69E-3	-9.10E-1	1.70E+0
GWP-f	kg CO2 eq	1.83E+0	2.30E-2	1.46E-4	1.86E+0	2.05E-2	6.73E-1	6.69E-3	-9.78E-1	1.58E+0
GWP-b	kg CO2 eq	-2.16E-1	1.40E-5	-1.54E-6	-2.16E-1	1.24E-5	2.66E-1	8.37E-6	6.93E-2	1.19E-1
GWP-luluc	kg CO2 eq	2.04E-3	8.15E-6	1.49E-7	2.05E-3	7.25E-6	2.56E-4	1.74E-7	-1.20E-3	1.11E-3
ODP	kg CFC11 eq	8.97E-7	5.31E-9	8.26E-12	9.02E-7	4.72E-9	7.10E-8	2.46E-10	-4.48E-7	5.30E-7
AP	mol H+ eq	8.86E-3	1.31E-4	1.47E-6	9.00E-3	1.17E-4	1.22E-3	6.00E-6	-3.87E-3	6.47E-3
EP-fw	kg P eq	8.47E-5	1.89E-7	8.24E-9	8.49E-5	1.69E-7	8.57E-6	7.87E-9	-3.99E-5	5.37E-5
EP-m	kg N eq	1.58E-3	4.69E-5	1.55E-7	1.63E-3	4.18E-5	3.02E-4	3.96E-6	-7.14E-4	1.26E-3
EP-T	mol N eq	1.72E-2	5.17E-4	1.85E-6	1.77E-2	4.60E-4	3.33E-3	2.39E-5	-7.74E-3	1.38E-2
POCP	kg NMVOC eq	5.70E-3	1.48E-4	6.28E-7	5.85E-3	1.32E-4	9.93E-4	8.25E-6	-2.60E-3	4.38E-3
ADP-mm	kg Sb eq	1.61E-3	5.96E-7	1.97E-8	1.61E-3	5.30E-7	4.78E-6	6.02E-9	-1.96E-5	1.60E-3
ADP-f	MJ	4.45E+1	3.54E-1	1.36E-3	4.49E+1	3.15E-1	3.27E+0	1.80E-2	-2.30E+1	2.55E+1
WDP	m3 depriv.	2.73E+0	1.08E-3	5.22E-5	2.73E+0	9.65E-4	1.29E-1	1.18E-4	-1.36E+0	1.50E+0
PM	disease inc.	6.58E-8	2.08E-9	9.08E-12	6.79E-8	1.85E-9	1.50E-8	1.24E-10	-3.21E-8	5.28E-8
IR	kBq U-235 eq	1.01E-1	1.55E-3	1.02E-6	1.03E-1	1.37E-3	1.16E-2	8.29E-5	-4.67E-2	6.92E-2
ETP-fw	CTUe	5.42E+1	2.87E-1	1.21E-2	5.45E+1	2.55E-1	2.53E+1	2.79E-1	-1.87E+1	6.17E+1
HTP-c	CTUh	1.62E-9	1.02E-11	6.17E-13	1.63E-9	9.09E-12	3.70E-10	4.98E-13	-5.87E-10	1.42E-9
HTP-nc	CTUh	4.91E-8	3.42E-10	1.57E-11	4.94E-8	3.05E-10	8.82E-9	5.37E-11	-1.80E-8	4.06E-8
SQP	Pt	2.89E+1	3.02E-1	2.24E-3	2.92E+1	2.69E-1	2.00E+0	4.61E-2	-3.21E+1	-5.97E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.03E+1	5.07E-3	2.40E-2	1.03E+1	4.51E-3	2.35E-1	6.77E-4	-5.81E+0	4.72E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.03E+1	5.07E-3	2.40E-2	1.03E+1	4.51E-3	2.35E-1	6.77E-4	-5.81E+0	4.72E+0
PENRE	MJ	4.77E+1	3.75E-1	1.44E-3	4.81E+1	3.34E-1	3.48E+0	1.91E-2	-2.47E+1	2.72E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.77E+1	3.75E-1	1.44E-3	4.81E+1	3.34E-1	3.48E+0	1.91E-2	-2.47E+1	2.72E+1
PET	MJ	5.80E+1	3.80E-1	2.55E-2	5.84E+1	3.38E-1	3.71E+0	1.98E-2	-3.05E+1	3.19E+1
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	3.21E-2	4.00E-5	1.46E-6	3.22E-2	3.56E-5	3.61E-3	2.21E-5	-1.61E-2	1.97E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.31E-4	9.04E-7	2.73E-13	2.32E-4	8.04E-7	5.40E-6	2.19E-8	-2.05E-5	2.18E-4
NHWD	kg	1.93E-1	2.19E-2	1.05E-6	2.15E-1	1.95E-2	1.21E-1	7.92E-2	-8.16E-2	3.53E-1
RWD	kg	9.21E-5	2.40E-6	1.10E-13	9.45E-5	2.14E-6	1.24E-5	1.17E-7	-4.21E-5	6.71E-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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