Environmental Profile

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

Ecochain v3.5.80

Product:	3003241 - Wadal PVC Reducer bush GY 125x110
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	3.86E-1	5.67E-3	1.45E-4	3.92E-1	5.11E-3	2.29E-1	1.62E-3	-2.27E-1	4.01E-1
GWP-f	kg CO2 eq	4.48E-1	5.67E-3	1.46E-4	4.54E-1	5.10E-3	1.56E-1	1.62E-3	-2.42E-1	3.74E-1
GWP-b	kg CO2 eq	-6.21E-2	3.44E-6	-1.54E-6	-6.21E-2	3.10E-6	7.38E-2	2.05E-6	1.51E-2	2.68E-2
GWP-luluc	kg CO2 eq	4.94E-4	2.01E-6	1.49E-7	4.97E-4	1.81E-6	6.45E-5	4.28E-8	-2.89E-4	2.74E-4
ODP	kg CFC11 eq	2.22E-7	1.31E-9	8.26E-12	2.24E-7	1.18E-9	1.79E-8	6.04E-11	-1.13E-7	1.30E-7
AP	mol H+ eq	2.15E-3	3.23E-5	1.47E-6	2.19E-3	2.91E-5	3.06E-4	1.47E-6	-9.68E-4	1.55E-3
EP-fw	kg P eq	2.08E-5	4.67E-8	8.24E-9	2.09E-5	4.20E-8	2.16E-6	1.93E-9	-9.92E-6	1.31E-5
EP-m	kg N eq	3.85E-4	1.16E-5	1.55E-7	3.96E-4	1.04E-5	7.53E-5	9.10E-7	-1.78E-4	3.05E-4
EP-T	mol N eq	4.19E-3	1.27E-4	1.85E-6	4.32E-3	1.15E-4	8.30E-4	5.87E-6	-1.93E-3	3.33E-3
POCP	kg NMVOC eq	1.37E-3	3.64E-5	6.28E-7	1.41E-3	3.28E-5	2.48E-4	2.02E-6	-6.53E-4	1.04E-3
ADP-mm	kg Sb eq	3.97E-4	1.47E-7	1.97E-8	3.97E-4	1.32E-7	1.20E-6	1.48E-9	-4.73E-6	3.94E-4
ADP-f	MJ	1.08E+1	8.70E-2	1.36E-3	1.09E+1	7.83E-2	8.22E-1	4.42E-3	-5.71E+0	6.10E+0
WDP	m3 depriv.	6.80E-1	2.67E-4	5.22E-5	6.80E-1	2.40E-4	3.24E-2	2.96E-5	-3.42E-1	3.72E-1
PM	disease inc.	1.55E-8	5.12E-10	9.08E-12	1.61E-8	4.61E-10	3.77E-9	3.04E-11	-8.00E-9	1.23E-8
IR	kBq U-235 eq	2.41E-2	3.80E-4	1.02E-6	2.45E-2	3.42E-4	2.91E-3	2.03E-5	-1.16E-2	1.61E-2
ETP-fw	CTUe	1.31E+1	7.07E-2	1.21E-2	1.32E+1	6.36E-2	6.35E+0	7.01E-2	-4.55E+0	1.51E+1
HTP-c	CTUh	4.01E-10	2.51E-12	6.17E-13	4.05E-10	2.26E-12	9.37E-11	1.23E-13	-1.49E-10	3.51E-10
HTP-nc	CTUh	1.22E-8	8.42E-11	1.57E-11	1.23E-8	7.58E-11	2.22E-9	1.35E-11	-4.53E-9	1.00E-8
SQP	Pt	7.76E+0	7.45E-2	2.24E-3	7.84E+0	6.70E-2	5.03E-1	1.13E-2	-8.23E+0	1.90E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.63E+0	1.25E-3	2.40E-2	2.65E+0	1.12E-3	5.92E-2	1.64E-4	-1.47E+0	1.24E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.63E+0	1.25E-3	2.40E-2	2.65E+0	1.12E-3	5.92E-2	1.64E-4	-1.47E+0	1.24E+0
PENRE	MJ	1.16E+1	9.24E-2	1.44E-3	1.17E+1	8.32E-2	8.74E-1	4.69E-3	-6.15E+0	6.51E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.16E+1	9.24E-2	1.44E-3	1.17E+1	8.32E-2	8.74E-1	4.69E-3	-6.15E+0	6.51E+0
PET	MJ	1.42E+1	9.36E-2	2.55E-2	1.43E+1	8.43E-2	9.33E-1	4.85E-3	-7.62E+0	7.75E+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	7.88E-3	9.85E-6	1.46E-6	7.89E-3	8.86E-6	8.90E-4	5.41E-6	-3.99E-3	4.80E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.77E-5	2.23E-7	2.73E-13	5.79E-5	2.00E-7	1.35E-6	5.39E-9	-5.09E-6	5.44E-5
NHWD	kg	4.74E-2	5.39E-3	1.05E-6	5.28E-2	4.85E-3	3.03E-2	1.94E-2	-2.07E-2	8.67E-2
RWD	kg	2.12E-5	5.92E-7	1.10E-13	2.18E-5	5.33E-7	3.13E-6	2.87E-8	-1.05E-5	1.50E-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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