Environmental Profile

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

Ecochain v3.5.80

Product:	3003224 - Wadal PVC Reducer bush GY 75x50
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

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.88E-1	2.80E-3	1.45E-4	1.91E-1	2.42E-3	1.16E-1	7.74E-4	-1.11E-1	1.99E-1
GWP-f	kg CO2 eq	2.19E-1	2.80E-3	1.46E-4	2.22E-1	2.42E-3	7.87E-2	7.74E-4	-1.18E-1	1.86E-1
GWP-b	kg CO2 eq	-3.13E-2	1.70E-6	-1.54E-6	-3.13E-2	1.47E-6	3.70E-2	9.67E-7	7.77E-3	1.34E-2
GWP-luluc	kg CO2 eq	2.45E-4	9.91E-7	1.49E-7	2.46E-4	8.56E-7	3.04E-5	2.06E-8	-1.42E-4	1.35E-4
ODP	kg CFC11 eq	1.05E-7	6.45E-10	8.26E-12	1.05E-7	5.57E-10	8.41E-9	2.87E-11	-5.38E-8	6.03E-8
AP	mol H+ eq	1.06E-3	1.60E-5	1.47E-6	1.08E-3	1.38E-5	1.45E-4	6.99E-7	-4.66E-4	7.70E-4
EP-fw	kg P eq	1.01E-5	2.30E-8	8.24E-9	1.02E-5	1.99E-8	1.02E-6	9.26E-10	-4.78E-6	6.41E-6
EP-m	kg N eq	1.90E-4	5.71E-6	1.55E-7	1.96E-4	4.93E-6	3.60E-5	4.29E-7	-8.65E-5	1.51E-4
EP-T	mol N eq	2.07E-3	6.29E-5	1.85E-6	2.14E-3	5.43E-5	3.97E-4	2.78E-6	-9.38E-4	1.65E-3
POCP	kg NMVOC eq	6.81E-4	1.80E-5	6.28E-7	7.00E-4	1.55E-5	1.18E-4	9.59E-7	-3.17E-4	5.17E-4
ADP-mm	kg Sb eq	1.98E-4	7.24E-8	1.97E-8	1.98E-4	6.25E-8	5.69E-7	7.05E-10	-2.25E-6	1.97E-4
ADP-f	MJ	5.26E+0	4.30E-2	1.36E-3	5.31E+0	3.71E-2	3.89E-1	2.10E-3	-2.77E+0	2.97E+0
WDP	m3 depriv.	3.25E-1	1.32E-4	5.22E-5	3.25E-1	1.14E-4	1.52E-2	1.52E-5	-1.63E-1	1.77E-1
PM	disease inc.	7.76E-9	2.53E-10	9.08E-12	8.02E-9	2.18E-10	1.80E-9	1.44E-11	-3.90E-9	6.15E-9
IR	kBq U-235 eq	1.16E-2	1.88E-4	1.02E-6	1.18E-2	1.62E-4	1.38E-3	9.60E-6	-5.58E-3	7.76E-3
ETP-fw	CTUe	6.46E+0	3.49E-2	1.21E-2	6.51E+0	3.01E-2	2.98E+0	3.28E-2	-2.22E+0	7.33E+0
HTP-c	CTUh	1.99E-10	1.24E-12	6.17E-13	2.01E-10	1.07E-12	4.57E-11	5.90E-14	-7.20E-11	1.75E-10
HTP-nc	CTUh	5.91E-9	4.16E-11	1.57E-11	5.97E-9	3.59E-11	1.05E-9	6.31E-12	-2.12E-9	4.94E-9
SQP	Pt	3.87E+0	3.68E-2	2.24E-3	3.91E+0	3.18E-2	2.39E-1	5.36E-3	-4.13E+0	5.65E-2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.23E+0	6.17E-4	2.40E-2	1.25E+0	5.32E-4	2.79E-2	7.73E-5	-7.35E-1	5.43E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.23E+0	6.17E-4	2.40E-2	1.25E+0	5.32E-4	2.79E-2	7.73E-5	-7.35E-1	5.43E-1
PENRE	MJ	5.65E+0	4.56E-2	1.44E-3	5.69E+0	3.94E-2	4.14E-1	2.22E-3	-2.98E+0	3.17E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.65E+0	4.56E-2	1.44E-3	5.69E+0	3.94E-2	4.14E-1	2.22E-3	-2.98E+0	3.17E+0
PET	MJ	6.87E+0	4.62E-2	2.55E-2	6.94E+0	3.99E-2	4.42E-1	2.30E-3	-3.72E+0	3.71E+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	3.85E-3	4.86E-6	1.46E-6	3.86E-3	4.20E-6	4.19E-4	2.56E-6	-1.92E-3	2.37E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.87E-5	1.10E-7	2.73E-13	2.88E-5	9.49E-8	6.41E-7	2.57E-9	-2.52E-6	2.70E-5
NHWD	kg	2.34E-2	2.66E-3	1.05E-6	2.61E-2	2.30E-3	1.46E-2	9.20E-3	-9.97E-3	4.23E-2
RWD	kg	1.02E-5	2.92E-7	1.10E-13	1.05E-5	2.52E-7	1.49E-6	1.36E-8	-5.03E-6	7.24E-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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