Environmental Profile

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

Ecochain v3.5.80

Product:	3080532 - Wadal PVC Reducer bush WT 50x40
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	7.09E-2	1.17E-4	1.45E-4	7.11E-2	9.97E-4	7.53E-2	3.13E-4	-5.44E-2	9.34E-2
GWP-f	kg CO2 eq	1.04E-1	1.16E-4	1.46E-4	1.04E-1	9.96E-4	4.09E-2	3.13E-4	-5.65E-2	8.96E-2
GWP-b	kg CO2 eq	-3.28E-2	7.07E-8	-1.54E-6	-3.28E-2	6.05E-7	3.44E-2	4.01E-7	2.20E-3	3.77E-3
GWP-luluc	kg CO2 eq	1.05E-4	4.12E-8	1.49E-7	1.05E-4	3.53E-7	1.29E-5	8.06E-9	-6.10E-5	5.75E-5
ODP	kg CFC11 eq	4.53E-8	2.68E-11	8.26E-12	4.53E-8	2.30E-10	3.61E-9	1.18E-11	-2.30E-8	2.62E-8
AP	mol H+ eq	4.78E-4	6.64E-7	1.47E-6	4.80E-4	5.68E-6	6.28E-5	2.86E-7	-2.10E-4	3.39E-4
EP-fw	kg P eq	4.36E-6	9.59E-10	8.24E-9	4.37E-6	8.20E-9	4.33E-7	3.68E-10	-2.02E-6	2.79E-6
EP-m	kg N eq	8.60E-5	2.37E-7	1.55E-7	8.64E-5	2.03E-6	1.58E-5	1.79E-7	-4.08E-5	6.36E-5
EP-T	mol N eq	9.33E-4	2.62E-6	1.85E-6	9.37E-4	2.24E-5	1.74E-4	1.14E-6	-4.46E-4	6.89E-4
POCP	kg NMVOC eq	3.32E-4	7.48E-7	6.28E-7	3.34E-4	6.40E-6	5.18E-5	3.92E-7	-1.54E-4	2.38E-4
ADP-mm	kg Sb eq	2.73E-6	3.01E-9	1.97E-8	2.76E-6	2.58E-8	2.42E-7	2.84E-10	-9.69E-7	2.05E-6
ADP-f	MJ	2.53E+0	1.79E-3	1.36E-3	2.53E+0	1.53E-2	1.65E-1	8.60E-4	-1.27E+0	1.44E+0
WDP	m3 depriv.	1.44E-1	5.49E-6	5.22E-5	1.44E-1	4.69E-5	6.50E-3	4.75E-6	-6.69E-2	8.34E-2
PM	disease inc.	3.89E-9	1.05E-11	9.08E-12	3.91E-9	8.99E-11	7.69E-10	5.92E-12	-1.89E-9	2.88E-9
IR	kBq U-235 eq	5.02E-3	7.82E-6	1.02E-6	5.03E-3	6.68E-5	5.90E-4	3.97E-6	-2.39E-3	3.29E-3
ETP-fw	CTUe	2.07E+0	1.45E-3	1.21E-2	2.08E+0	1.24E-2	1.28E+0	1.41E-2	-9.29E-1	2.46E+0
HTP-c	CTUh	8.01E-11	5.17E-14	6.17E-13	8.08E-11	4.42E-13	1.94E-11	2.32E-14	-3.66E-11	6.41E-11
HTP-nc	CTUh	2.15E-9	1.73E-12	1.57E-11	2.16E-9	1.48E-11	4.53E-10	2.68E-12	-8.90E-10	1.74E-9
SQP	Pt	3.22E+0	1.53E-3	2.24E-3	3.22E+0	1.31E-2	1.02E-1	2.21E-3	-2.90E+0	4.39E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.40E-1	2.57E-5	2.40E-2	7.64E-1	2.19E-4	1.19E-2	3.26E-5	-4.76E-1	3.00E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.40E-1	2.57E-5	2.40E-2	7.64E-1	2.19E-4	1.19E-2	3.26E-5	-4.76E-1	3.00E-1
PENRE	MJ	2.71E+0	1.90E-3	1.44E-3	2.72E+0	1.62E-2	1.76E-1	9.13E-4	-1.38E+0	1.53E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.71E+0	1.90E-3	1.44E-3	2.72E+0	1.62E-2	1.76E-1	9.13E-4	-1.38E+0	1.53E+0
PET	MJ	3.45E+0	1.92E-3	2.55E-2	3.48E+0	1.65E-2	1.88E-1	9.45E-4	-1.85E+0	1.83E+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	1.73E-3	2.02E-7	1.46E-6	1.73E-3	1.73E-6	1.80E-4	1.06E-6	-7.85E-4	1.13E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.00E-6	4.57E-9	2.73E-13	2.01E-6	3.91E-8	2.74E-7	1.04E-9	-1.26E-6	1.06E-6
NHWD	kg	1.10E-2	1.11E-4	1.05E-6	1.12E-2	9.48E-4	6.57E-3	3.79E-3	-4.85E-3	1.76E-2
RWD	kg	4.51E-6	1.22E-8	1.10E-13	4.52E-6	1.04E-7	6.36E-7	5.60E-9	-2.20E-6	3.06E-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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