

Environmental Profile

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

Ecochain v3.5.80



Product: 3003113 - Wadal PVC Bend 88° GY 50 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					Use stage							End-of-Life stage				
A1 Raw material supply A2 Transport A3 Manufacturing					B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment B6 Operational energy use B7 Operational water use							C1 De-construction demolition C2 Transport C3 Waste processing C4 Disposal				
Construction process stage												Benefits and loads beyond the system boundaries				
A4 Transport gate to site A5 Assembly / Construction installation process												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	1.96E-1	2.71E-3	1.45E-4	1.99E-1	2.50E-3	1.20E-1	7.98E-4	-1.15E-1	2.07E-1
GWP-f	kg CO2 eq	2.27E-1	2.70E-3	1.46E-4	2.30E-1	2.50E-3	8.27E-2	7.98E-4	-1.23E-1	1.93E-1
GWP-b	kg CO2 eq	-3.13E-2	1.64E-6	-1.54E-6	-3.13E-2	1.52E-6	3.69E-2	9.99E-7	7.59E-3	1.32E-2
GWP-luluc	kg CO2 eq	2.50E-4	9.57E-7	1.49E-7	2.51E-4	8.84E-7	3.14E-5	2.12E-8	-1.43E-4	1.40E-4
ODP	kg CFC11 eq	1.08E-7	6.23E-10	8.26E-12	1.09E-7	5.75E-10	8.69E-9	2.96E-11	-5.56E-8	6.24E-8
AP	mol H+ eq	1.09E-3	1.54E-5	1.47E-6	1.11E-3	1.42E-5	1.50E-4	7.22E-7	-4.78E-4	7.96E-4
EP-fw	kg P eq	1.04E-5	2.22E-8	8.24E-9	1.04E-5	2.05E-8	1.05E-6	9.55E-10	-4.88E-6	6.64E-6
EP-m	kg N eq	1.95E-4	5.51E-6	1.55E-7	2.01E-4	5.09E-6	3.72E-5	4.43E-7	-8.87E-5	1.55E-4
EP-T	mol N eq	2.13E-3	6.07E-5	1.85E-6	2.19E-3	5.61E-5	4.10E-4	2.87E-6	-9.61E-4	1.70E-3
POCP	kg NMVOC eq	7.04E-4	1.74E-5	6.28E-7	7.22E-4	1.60E-5	1.22E-4	9.90E-7	-3.25E-4	5.36E-4
ADP-mm	kg Sb eq	1.98E-4	6.99E-8	1.97E-8	1.99E-4	6.46E-8	5.87E-7	7.27E-10	-2.32E-6	1.97E-4
ADP-f	MJ	5.47E+0	4.15E-2	1.36E-3	5.52E+0	3.83E-2	4.02E-1	2.16E-3	-2.87E+0	3.09E+0
WDP	m3 depriv.	3.37E-1	1.27E-4	5.22E-5	3.37E-1	1.18E-4	1.57E-2	1.55E-5	-1.68E-1	1.85E-1
PM	disease inc.	7.96E-9	2.44E-10	9.08E-12	8.21E-9	2.25E-10	1.85E-9	1.49E-11	-3.96E-9	6.34E-9
IR	kBq U-235 eq	1.20E-2	1.81E-4	1.02E-6	1.22E-2	1.68E-4	1.42E-3	9.92E-6	-5.73E-3	8.02E-3
ETP-fw	CTUe	6.55E+0	3.37E-2	1.21E-2	6.60E+0	3.11E-2	3.08E+0	3.39E-2	-2.25E+0	7.49E+0
HTP-c	CTUh	1.99E-10	1.20E-12	6.17E-13	2.00E-10	1.11E-12	4.72E-11	6.08E-14	-7.38E-11	1.75E-10
HTP-nc	CTUh	6.00E-9	4.02E-11	1.57E-11	6.06E-9	3.71E-11	1.09E-9	6.52E-12	-2.23E-9	4.96E-9
SQP	Pt	3.89E+0	3.55E-2	2.24E-3	3.93E+0	3.28E-2	2.47E-1	5.53E-3	-4.11E+0	1.04E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.24E+0	5.95E-4	2.40E-2	1.27E+0	5.50E-4	2.88E-2	8.00E-5	-7.33E-1	5.61E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.24E+0	5.95E-4	2.40E-2	1.27E+0	5.50E-4	2.88E-2	8.00E-5	-7.33E-1	5.61E-1
PENRE	MJ	5.87E+0	4.40E-2	1.44E-3	5.92E+0	4.07E-2	4.28E-1	2.30E-3	-3.09E+0	3.30E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.87E+0	4.40E-2	1.44E-3	5.92E+0	4.07E-2	4.28E-1	2.30E-3	-3.09E+0	3.30E+0
PET	MJ	7.11E+0	4.46E-2	2.55E-2	7.18E+0	4.12E-2	4.56E-1	2.38E-3	-3.82E+0	3.86E+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	4.00E-3	4.69E-6	1.46E-6	4.00E-3	4.34E-6	4.34E-4	2.64E-6	-1.97E-3	2.48E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.88E-5	1.06E-7	2.73E-13	2.89E-5	9.80E-8	6.62E-7	2.65E-9	-2.58E-6	2.71E-5
NHWD	kg	2.39E-2	2.57E-3	1.05E-6	2.65E-2	2.38E-3	1.52E-2	9.50E-3	-1.02E-2	4.34E-2
RWD	kg	1.06E-5	2.82E-7	1.10E-13	1.08E-5	2.61E-7	1.53E-6	1.40E-8	-5.17E-6	7.47E-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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