

Environmental Profile

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

Ecochain v3.5.80



Product: 3003134 - Wadal PVC Bend 15° GY 110 S/S
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	5.68E-1	8.72E-3	1.45E-4	5.77E-1	7.74E-3	3.86E-1	2.45E-3	-3.41E-1	6.32E-1
GWP-f	kg CO2 eq	6.93E-1	8.71E-3	1.46E-4	7.02E-1	7.73E-3	2.35E-1	2.45E-3	-3.77E-1	5.70E-1
GWP-b	kg CO2 eq	-1.26E-1	5.29E-6	-1.54E-6	-1.26E-1	4.70E-6	1.50E-1	3.10E-6	3.72E-2	6.14E-2
GWP-luluc	kg CO2 eq	8.36E-4	3.08E-6	1.49E-7	8.39E-4	2.74E-6	9.86E-5	6.43E-8	-5.53E-4	3.88E-4
ODP	kg CFC11 eq	3.41E-7	2.01E-9	8.26E-12	3.43E-7	1.78E-9	2.75E-8	9.16E-11	-1.72E-7	2.00E-7
AP	mol H+ eq	3.31E-3	4.96E-5	1.47E-6	3.37E-3	4.41E-5	4.73E-4	2.23E-6	-1.56E-3	2.32E-3
EP-fw	kg P eq	3.23E-5	7.17E-8	8.24E-9	3.24E-5	6.36E-8	3.30E-6	2.91E-9	-1.65E-5	1.93E-5
EP-m	kg N eq	6.09E-4	1.78E-5	1.55E-7	6.26E-4	1.58E-5	1.17E-4	1.38E-6	-2.93E-4	4.68E-4
EP-T	mol N eq	6.57E-3	1.96E-4	1.85E-6	6.76E-3	1.74E-4	1.29E-3	8.89E-6	-3.20E-3	5.04E-3
POCP	kg NMVOC eq	2.14E-3	5.59E-5	6.28E-7	2.20E-3	4.97E-5	3.86E-4	3.06E-6	-1.07E-3	1.57E-3
ADP-mm	kg Sb eq	5.47E-4	2.25E-7	1.97E-8	5.47E-4	2.00E-7	1.86E-6	2.23E-9	-7.34E-6	5.42E-4
ADP-f	MJ	1.67E+1	1.34E-1	1.36E-3	1.68E+1	1.19E-1	1.26E+0	6.69E-3	-8.84E+0	9.35E+0
WDP	m3 depriv.	1.04E+0	4.10E-4	5.22E-5	1.04E+0	3.64E-4	4.95E-2	4.29E-5	-5.39E-1	5.49E-1
PM	disease inc.	2.50E-8	7.86E-10	9.08E-12	2.58E-8	6.98E-10	5.85E-9	4.61E-11	-1.40E-8	1.83E-8
IR	kBq U-235 eq	3.73E-2	5.85E-4	1.02E-6	3.78E-2	5.19E-4	4.50E-3	3.08E-5	-1.87E-2	2.42E-2
ETP-fw	CTUe	2.10E+1	1.09E-1	1.21E-2	2.12E+1	9.64E-2	9.72E+0	1.07E-1	-8.10E+0	2.30E+1
HTP-c	CTUh	6.10E-10	3.86E-12	6.17E-13	6.14E-10	3.43E-12	1.43E-10	1.85E-13	-2.46E-10	5.15E-10
HTP-nc	CTUh	1.82E-8	1.29E-10	1.57E-11	1.84E-8	1.15E-10	3.40E-9	2.05E-11	-7.25E-9	1.47E-8
SQP	Pt	1.50E+1	1.14E-1	2.24E-3	1.51E+1	1.02E-1	7.72E-1	1.71E-2	-1.73E+1	-1.31E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.24E+0	1.92E-3	2.40E-2	4.26E+0	1.70E-3	9.06E-2	2.50E-4	-3.03E+0	1.32E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.24E+0	1.92E-3	2.40E-2	4.26E+0	1.70E-3	9.06E-2	2.50E-4	-3.03E+0	1.32E+0
PENRE	MJ	1.79E+1	1.42E-1	1.44E-3	1.80E+1	1.26E-1	1.34E+0	7.10E-3	-9.51E+0	9.98E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.79E+1	1.42E-1	1.44E-3	1.80E+1	1.26E-1	1.34E+0	7.10E-3	-9.51E+0	9.98E+0
PET	MJ	2.21E+1	1.44E-1	2.55E-2	2.23E+1	1.28E-1	1.44E+0	7.35E-3	-1.25E+1	1.13E+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	1.21E-2	1.51E-5	1.46E-6	1.21E-2	1.34E-5	1.36E-3	8.20E-6	-6.62E-3	6.84E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.11E-5	3.42E-7	2.73E-13	8.14E-5	3.04E-7	2.09E-6	8.14E-9	-8.05E-6	7.57E-5
NHWD	kg	7.48E-2	8.29E-3	1.05E-6	8.31E-2	7.36E-3	4.66E-2	2.94E-2	-3.38E-2	1.33E-1
RWD	kg	3.31E-5	9.10E-7	1.10E-13	3.40E-5	8.07E-7	4.85E-6	4.35E-8	-1.69E-5	2.27E-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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