

Environmental Profile

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

Ecochain v3.5.80



Product: 3003128 - Wadal PVC Bend 45° GY 50 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	1.65E-1	2.25E-3	1.45E-4	1.67E-1	2.13E-3	1.09E-1	6.80E-4	-1.00E-1	1.79E-1
GWP-f	kg CO2 eq	1.97E-1	2.25E-3	1.46E-4	1.99E-1	2.13E-3	7.25E-2	6.80E-4	-1.06E-1	1.68E-1
GWP-b	kg CO2 eq	-3.17E-2	1.37E-6	-1.54E-6	-3.17E-2	1.29E-6	3.64E-2	8.52E-7	6.45E-3	1.11E-2
GWP-luluc	kg CO2 eq	2.15E-4	7.96E-7	1.49E-7	2.16E-4	7.53E-7	2.68E-5	1.81E-8	-1.24E-4	1.19E-4
ODP	kg CFC11 eq	9.24E-8	5.19E-10	8.26E-12	9.30E-8	4.90E-10	7.43E-9	2.52E-11	-4.76E-8	5.33E-8
AP	mol H+ eq	9.42E-4	1.28E-5	1.47E-6	9.56E-4	1.21E-5	1.28E-4	6.15E-7	-4.13E-4	6.84E-4
EP-fw	kg P eq	8.92E-6	1.85E-8	8.24E-9	8.94E-6	1.75E-8	8.98E-7	8.13E-10	-4.19E-6	5.67E-6
EP-m	kg N eq	1.69E-4	4.59E-6	1.55E-7	1.73E-4	4.34E-6	3.19E-5	3.78E-7	-7.71E-5	1.33E-4
EP-T	mol N eq	1.84E-3	5.05E-5	1.85E-6	1.89E-3	4.78E-5	3.52E-4	2.45E-6	-8.36E-4	1.46E-3
POCP	kg NMVOC eq	6.12E-4	1.44E-5	6.28E-7	6.27E-4	1.37E-5	1.05E-4	8.44E-7	-2.83E-4	4.63E-4
ADP-mm	kg Sb eq	1.50E-4	5.82E-8	1.97E-8	1.50E-4	5.51E-8	5.02E-7	6.19E-10	-1.99E-6	1.48E-4
ADP-f	MJ	4.74E+0	3.45E-2	1.36E-3	4.78E+0	3.27E-2	3.44E-1	1.84E-3	-2.48E+0	2.68E+0
WDP	m3 depriv.	2.89E-1	1.06E-4	5.22E-5	2.89E-1	1.00E-4	1.34E-2	1.31E-5	-1.43E-1	1.59E-1
PM	disease inc.	6.96E-9	2.03E-10	9.08E-12	7.17E-9	1.92E-10	1.59E-9	1.27E-11	-3.47E-9	5.50E-9
IR	kBq U-235 eq	1.03E-2	1.51E-4	1.02E-6	1.04E-2	1.43E-4	1.22E-3	8.45E-6	-4.93E-3	6.85E-3
ETP-fw	CTUe	5.46E+0	2.80E-2	1.21E-2	5.50E+0	2.65E-2	2.63E+0	2.90E-2	-1.94E+0	6.24E+0
HTP-c	CTUh	1.68E-10	9.98E-13	6.17E-13	1.69E-10	9.44E-13	4.05E-11	5.17E-14	-6.47E-11	1.46E-10
HTP-nc	CTUh	5.02E-9	3.34E-11	1.57E-11	5.07E-9	3.16E-11	9.29E-10	5.57E-12	-1.91E-9	4.13E-9
SQP	Pt	3.73E+0	2.95E-2	2.24E-3	3.76E+0	2.79E-2	2.11E-1	4.72E-3	-3.84E+0	1.60E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.10E+0	4.96E-4	2.40E-2	1.12E+0	4.69E-4	2.46E-2	6.82E-5	-6.76E-1	4.71E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.10E+0	4.96E-4	2.40E-2	1.12E+0	4.69E-4	2.46E-2	6.82E-5	-6.76E-1	4.71E-1
PENRE	MJ	5.09E+0	3.67E-2	1.44E-3	5.13E+0	3.47E-2	3.65E-1	1.96E-3	-2.67E+0	2.86E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.09E+0	3.67E-2	1.44E-3	5.13E+0	3.47E-2	3.65E-1	1.96E-3	-2.67E+0	2.86E+0
PET	MJ	6.19E+0	3.72E-2	2.55E-2	6.25E+0	3.52E-2	3.90E-1	2.02E-3	-3.35E+0	3.33E+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	3.44E-3	3.91E-6	1.46E-6	3.45E-3	3.70E-6	3.71E-4	2.25E-6	-1.68E-3	2.14E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.21E-5	8.83E-8	2.73E-13	2.22E-5	8.35E-8	5.66E-7	2.25E-9	-2.25E-6	2.06E-5
NHWD	kg	2.08E-2	2.14E-3	1.05E-6	2.29E-2	2.02E-3	1.31E-2	8.09E-3	-8.90E-3	3.72E-2
RWD	kg	9.06E-6	2.35E-7	1.10E-13	9.30E-6	2.22E-7	1.31E-6	1.20E-8	-4.45E-6	6.39E-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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