

Environmental Profile

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

Ecochain v3.5.80



Product: 3003126 - Wadal PVC Bend 45° GY 40 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	8.88E-2	1.35E-3	1.45E-4	9.03E-2	1.21E-3	8.21E-2	3.90E-4	-6.20E-2	1.12E-1
GWP-f	kg CO2 eq	1.21E-1	1.35E-3	1.46E-4	1.23E-1	1.21E-3	4.69E-2	3.90E-4	-6.59E-2	1.05E-1
GWP-b	kg CO2 eq	-3.25E-2	8.21E-7	-1.54E-6	-3.25E-2	7.33E-7	3.51E-2	4.81E-7	3.88E-3	6.52E-3
GWP-luluc	kg CO2 eq	1.38E-4	4.79E-7	1.49E-7	1.39E-4	4.27E-7	1.51E-5	1.05E-8	-7.92E-5	7.49E-5
ODP	kg CFC11 eq	5.19E-8	3.12E-10	8.26E-12	5.22E-8	2.78E-10	4.16E-9	1.43E-11	-2.76E-8	2.91E-8
AP	mol H+ eq	5.88E-4	7.70E-6	1.47E-6	5.98E-4	6.87E-6	7.36E-5	3.50E-7	-2.51E-4	4.27E-4
EP-fw	kg P eq	5.42E-6	1.11E-8	8.24E-9	5.44E-6	9.93E-9	5.04E-7	4.71E-10	-2.50E-6	3.45E-6
EP-m	kg N eq	1.07E-4	2.76E-6	1.55E-7	1.10E-4	2.46E-6	1.86E-5	2.13E-7	-4.83E-5	8.25E-5
EP-T	mol N eq	1.17E-3	3.04E-5	1.85E-6	1.20E-3	2.71E-5	2.05E-4	1.39E-6	-5.28E-4	9.10E-4
POCP	kg NMVOC eq	3.95E-4	8.68E-6	6.28E-7	4.04E-4	7.75E-6	6.11E-5	4.81E-7	-1.79E-4	2.94E-4
ADP-mm	kg Sb eq	9.94E-5	3.50E-8	1.97E-8	9.95E-5	3.12E-8	2.85E-7	3.55E-10	-1.16E-6	9.86E-5
ADP-f	MJ	2.89E+0	2.08E-2	1.36E-3	2.91E+0	1.85E-2	1.96E-1	1.05E-3	-1.50E+0	1.63E+0
WDP	m3 depriv.	1.68E-1	6.37E-5	5.22E-5	1.68E-1	5.69E-5	7.51E-3	8.48E-6	-8.24E-2	9.32E-2
PM	disease inc.	4.58E-9	1.22E-10	9.08E-12	4.71E-9	1.09E-10	9.13E-10	7.22E-12	-2.26E-9	3.48E-9
IR	kBq U-235 eq	6.12E-3	9.07E-5	1.02E-6	6.22E-3	8.10E-5	6.93E-4	4.79E-6	-2.92E-3	4.07E-3
ETP-fw	CTUe	3.40E+0	1.69E-2	1.21E-2	3.43E+0	1.50E-2	1.46E+0	1.60E-2	-1.18E+0	3.75E+0
HTP-c	CTUh	1.06E-10	6.00E-13	6.17E-13	1.07E-10	5.35E-13	2.44E-11	3.01E-14	-4.23E-11	9.01E-11
HTP-nc	CTUh	3.02E-9	2.01E-11	1.57E-11	3.06E-9	1.79E-11	5.29E-10	3.10E-12	-1.14E-9	2.47E-9
SQP	Pt	3.36E+0	1.78E-2	2.24E-3	3.38E+0	1.58E-2	1.21E-1	2.68E-3	-3.23E+0	2.85E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.78E-1	2.98E-4	2.40E-2	8.02E-1	2.66E-4	1.39E-2	3.82E-5	-5.43E-1	2.74E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.78E-1	2.98E-4	2.40E-2	8.02E-1	2.66E-4	1.39E-2	3.82E-5	-5.43E-1	2.74E-1
PENRE	MJ	3.10E+0	2.20E-2	1.44E-3	3.12E+0	1.97E-2	2.08E-1	1.11E-3	-1.62E+0	1.73E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.10E+0	2.20E-2	1.44E-3	3.12E+0	1.97E-2	2.08E-1	1.11E-3	-1.62E+0	1.73E+0
PET	MJ	3.88E+0	2.23E-2	2.55E-2	3.93E+0	1.99E-2	2.22E-1	1.15E-3	-2.16E+0	2.01E+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	2.10E-3	2.35E-6	1.46E-6	2.11E-3	2.10E-6	2.09E-4	1.28E-6	-9.85E-4	1.34E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.45E-5	5.31E-8	2.73E-13	1.45E-5	4.74E-8	3.26E-7	1.29E-9	-1.43E-6	1.35E-5
NHWD	kg	1.32E-2	1.29E-3	1.05E-6	1.45E-2	1.15E-3	7.76E-3	4.59E-3	-5.65E-3	2.23E-2
RWD	kg	5.44E-6	1.41E-7	1.10E-13	5.58E-6	1.26E-7	7.52E-7	6.79E-9	-2.67E-6	3.79E-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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