

Environmental Profile

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

Ecochain v3.5.80



Product: 3003111 - Wadal PVC Bend 88° GY 40 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	1.47E-1	2.13E-3	1.45E-4	1.49E-1	1.92E-3	1.02E-1	6.15E-4	-9.22E-2	1.61E-1
GWP-f	kg CO2 eq	1.79E-1	2.13E-3	1.46E-4	1.81E-1	1.92E-3	6.66E-2	6.14E-4	-9.66E-2	1.53E-1
GWP-b	kg CO2 eq	-3.19E-2	1.29E-6	-1.54E-6	-3.19E-2	1.16E-6	3.55E-2	7.66E-7	4.42E-3	8.01E-3
GWP-luluc	kg CO2 eq	1.91E-4	7.54E-7	1.49E-7	1.92E-4	6.79E-7	2.41E-5	1.64E-8	-1.04E-4	1.13E-4
ODP	kg CFC11 eq	8.28E-8	4.91E-10	8.26E-12	8.33E-8	4.42E-10	6.65E-9	2.27E-11	-4.29E-8	4.75E-8
AP	mol H+ eq	8.60E-4	1.21E-5	1.47E-6	8.74E-4	1.09E-5	1.15E-4	5.55E-7	-3.70E-4	6.30E-4
EP-fw	kg P eq	8.10E-6	1.75E-8	8.24E-9	8.12E-6	1.58E-8	8.05E-7	7.37E-10	-3.69E-6	5.25E-6
EP-m	kg N eq	1.53E-4	4.34E-6	1.55E-7	1.58E-4	3.91E-6	2.86E-5	3.40E-7	-6.91E-5	1.21E-4
EP-T	mol N eq	1.68E-3	4.78E-5	1.85E-6	1.73E-3	4.31E-5	3.16E-4	2.21E-6	-7.50E-4	1.34E-3
POCP	kg NMVOC eq	5.61E-4	1.37E-5	6.28E-7	5.76E-4	1.23E-5	9.41E-5	7.61E-7	-2.56E-4	4.27E-4
ADP-mm	kg Sb eq	1.49E-4	5.51E-8	1.97E-8	1.49E-4	4.96E-8	4.49E-7	5.60E-10	-1.79E-6	1.48E-4
ADP-f	MJ	4.30E+0	3.27E-2	1.36E-3	4.34E+0	2.94E-2	3.08E-1	1.66E-3	-2.24E+0	2.43E+0
WDP	m3 depriv.	2.61E-1	1.00E-4	5.22E-5	2.61E-1	9.03E-5	1.21E-2	1.22E-5	-1.27E-1	1.46E-1
PM	disease inc.	6.37E-9	1.92E-10	9.08E-12	6.57E-9	1.73E-10	1.42E-9	1.14E-11	-3.07E-9	5.11E-9
IR	kBq U-235 eq	9.29E-3	1.43E-4	1.02E-6	9.43E-3	1.29E-4	1.09E-3	7.61E-6	-4.37E-3	6.28E-3
ETP-fw	CTUe	4.93E+0	2.65E-2	1.21E-2	4.97E+0	2.39E-2	2.35E+0	2.59E-2	-1.66E+0	5.71E+0
HTP-c	CTUh	1.60E-10	9.45E-13	6.17E-13	1.61E-10	8.51E-13	3.67E-11	4.69E-14	-5.88E-11	1.40E-10
HTP-nc	CTUh	4.67E-9	3.16E-11	1.57E-11	4.72E-9	2.85E-11	8.35E-10	4.99E-12	-1.66E-9	3.93E-9
SQP	Pt	3.59E+0	2.80E-2	2.24E-3	3.62E+0	2.52E-2	1.90E-1	4.25E-3	-3.45E+0	3.94E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.01E+0	4.69E-4	2.40E-2	1.04E+0	4.22E-4	2.21E-2	6.13E-5	-5.99E-1	4.63E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.01E+0	4.69E-4	2.40E-2	1.04E+0	4.22E-4	2.21E-2	6.13E-5	-5.99E-1	4.63E-1
PENRE	MJ	4.61E+0	3.47E-2	1.44E-3	4.65E+0	3.13E-2	3.28E-1	1.76E-3	-2.42E+0	2.59E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.61E+0	3.47E-2	1.44E-3	4.65E+0	3.13E-2	3.28E-1	1.76E-3	-2.42E+0	2.59E+0
PET	MJ	5.63E+0	3.52E-2	2.55E-2	5.69E+0	3.17E-2	3.50E-1	1.83E-3	-3.02E+0	3.06E+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	3.13E-3	3.70E-6	1.46E-6	3.13E-3	3.33E-6	3.32E-4	2.03E-6	-1.47E-3	2.00E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.18E-5	8.36E-8	2.73E-13	2.18E-5	7.53E-8	5.08E-7	2.04E-9	-2.07E-6	2.04E-5
NHWD	kg	1.91E-2	2.03E-3	1.05E-6	2.11E-2	1.82E-3	1.18E-2	7.29E-3	-8.07E-3	3.39E-2
RWD	kg	8.20E-6	2.22E-7	1.10E-13	8.42E-6	2.00E-7	1.18E-6	1.08E-8	-3.96E-6	5.84E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777