

Environmental Profile

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

Ecochain v3.5.80



Product: 3003149 - Wadal PVC Branch 88° GY 50 S/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	2.78E-1	3.77E-3	1.45E-4	2.82E-1	3.50E-3	1.49E-1	1.11E-3	-1.56E-1	2.80E-1
GWP-f	kg CO2 eq	3.08E-1	3.76E-3	1.46E-4	3.12E-1	3.50E-3	1.10E-1	1.11E-3	-1.67E-1	2.61E-1
GWP-b	kg CO2 eq	-3.04E-2	2.29E-6	-1.54E-6	-3.04E-2	2.12E-6	3.84E-2	1.40E-6	1.08E-2	1.88E-2
GWP-luluc	kg CO2 eq	3.34E-4	1.33E-6	1.49E-7	3.36E-4	1.24E-6	4.42E-5	2.94E-8	-1.95E-4	1.86E-4
ODP	kg CFC11 eq	1.52E-7	8.68E-10	8.26E-12	1.53E-7	8.06E-10	1.22E-8	4.14E-11	-7.74E-8	8.87E-8
AP	mol H+ eq	1.47E-3	2.14E-5	1.47E-6	1.49E-3	1.99E-5	2.10E-4	1.01E-6	-6.56E-4	1.07E-3
EP-fw	kg P eq	1.42E-5	3.10E-8	8.24E-9	1.42E-5	2.88E-8	1.48E-6	1.33E-9	-6.76E-6	8.97E-6
EP-m	kg N eq	2.62E-4	7.67E-6	1.55E-7	2.70E-4	7.13E-6	5.17E-5	6.23E-7	-1.20E-4	2.09E-4
EP-T	mol N eq	2.84E-3	8.46E-5	1.85E-6	2.93E-3	7.85E-5	5.70E-4	4.02E-6	-1.30E-3	2.28E-3
POCP	kg NMVOC eq	9.37E-4	2.42E-5	6.28E-7	9.61E-4	2.25E-5	1.70E-4	1.38E-6	-4.39E-4	7.17E-4
ADP-mm	kg Sb eq	2.49E-4	9.74E-8	1.97E-8	2.49E-4	9.05E-8	8.23E-7	1.01E-9	-3.22E-6	2.46E-4
ADP-f	MJ	7.48E+0	5.78E-2	1.36E-3	7.54E+0	5.37E-2	5.63E-1	3.03E-3	-3.93E+0	4.23E+0
WDP	m3 depriv.	4.68E-1	1.77E-4	5.22E-5	4.68E-1	1.65E-4	2.22E-2	2.04E-5	-2.34E-1	2.56E-1
PM	disease inc.	1.05E-8	3.40E-10	9.08E-12	1.09E-8	3.16E-10	2.59E-9	2.08E-11	-5.31E-9	8.47E-9
IR	kBq U-235 eq	1.65E-2	2.53E-4	1.02E-6	1.67E-2	2.35E-4	2.00E-3	1.39E-5	-7.94E-3	1.10E-2
ETP-fw	CTUe	8.74E+0	4.69E-2	1.21E-2	8.80E+0	4.36E-2	4.35E+0	4.80E-2	-3.11E+0	1.01E+1
HTP-c	CTUh	2.61E-10	1.67E-12	6.17E-13	2.64E-10	1.55E-12	6.46E-11	8.42E-14	-9.84E-11	2.32E-10
HTP-nc	CTUh	8.08E-9	5.59E-11	1.57E-11	8.15E-9	5.20E-11	1.52E-9	9.21E-12	-3.08E-9	6.66E-9
SQP	Pt	4.29E+0	4.94E-2	2.24E-3	4.34E+0	4.59E-2	3.45E-1	7.75E-3	-4.85E+0	-1.06E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.49E+0	8.29E-4	2.40E-2	1.51E+0	7.70E-4	4.06E-2	1.13E-4	-8.92E-1	6.61E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.49E+0	8.29E-4	2.40E-2	1.51E+0	7.70E-4	4.06E-2	1.13E-4	-8.92E-1	6.61E-1
PENRE	MJ	8.03E+0	6.14E-2	1.44E-3	8.09E+0	5.70E-2	5.99E-1	3.21E-3	-4.24E+0	4.51E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.03E+0	6.14E-2	1.44E-3	8.09E+0	5.70E-2	5.99E-1	3.21E-3	-4.24E+0	4.51E+0
PET	MJ	9.51E+0	6.22E-2	2.55E-2	9.60E+0	5.78E-2	6.40E-1	3.32E-3	-5.13E+0	5.17E+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	5.44E-3	6.54E-6	1.46E-6	5.45E-3	6.07E-6	6.10E-4	3.70E-6	-2.74E-3	3.33E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.65E-5	1.48E-7	2.73E-13	3.67E-5	1.37E-7	9.24E-7	3.69E-9	-3.48E-6	3.43E-5
NHWD	kg	3.20E-2	3.58E-3	1.05E-6	3.56E-2	3.33E-3	2.09E-2	1.33E-2	-1.38E-2	5.94E-2
RWD	kg	1.45E-5	3.93E-7	1.10E-13	1.49E-5	3.65E-7	2.14E-6	1.97E-8	-7.13E-6	1.03E-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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