

Environmental Profile

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

Ecochain v3.5.80



Product: 3003176 - Wadal PVC Branch 88° GY 110x40 S/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	6.36E-1	9.25E-3	1.45E-4	6.45E-1	8.32E-3	4.14E-1	2.65E-3	-3.63E-1	7.07E-1
GWP-f	kg CO2 eq	7.60E-1	9.24E-3	1.46E-4	7.70E-1	8.31E-3	2.58E-1	2.64E-3	-4.12E-1	6.26E-1
GWP-b	kg CO2 eq	-1.25E-1	5.61E-6	-1.54E-6	-1.25E-1	5.05E-6	1.56E-1	3.33E-6	4.96E-2	8.00E-2
GWP-luluc	kg CO2 eq	9.60E-4	3.27E-6	1.49E-7	9.63E-4	2.94E-6	1.06E-4	6.97E-8	-6.57E-4	4.15E-4
ODP	kg CFC11 eq	3.66E-7	2.13E-9	8.26E-12	3.68E-7	1.92E-9	2.95E-8	9.85E-11	-1.86E-7	2.14E-7
AP	mol H+ eq	3.67E-3	5.26E-5	1.47E-6	3.72E-3	4.74E-5	5.11E-4	2.40E-6	-1.72E-3	2.57E-3
EP-fw	kg P eq	3.57E-5	7.60E-8	8.24E-9	3.58E-5	6.84E-8	3.55E-6	3.15E-9	-1.85E-5	2.09E-5
EP-m	kg N eq	6.78E-4	1.88E-5	1.55E-7	6.97E-4	1.69E-5	1.28E-4	1.48E-6	-3.24E-4	5.20E-4
EP-T	mol N eq	7.32E-3	2.08E-4	1.85E-6	7.53E-3	1.87E-4	1.41E-3	9.56E-6	-3.53E-3	5.60E-3
POCP	kg NMVOC eq	2.36E-3	5.93E-5	6.28E-7	2.42E-3	5.34E-5	4.20E-4	3.29E-6	-1.17E-3	1.73E-3
ADP-mm	kg Sb eq	6.45E-4	2.39E-7	1.97E-8	6.46E-4	2.15E-7	2.01E-6	2.41E-9	-7.93E-6	6.40E-4
ADP-f	MJ	1.81E+1	1.42E-1	1.36E-3	1.83E+1	1.28E-1	1.36E+0	7.20E-3	-9.61E+0	1.01E+1
WDP	m3 depriv.	1.12E+0	4.35E-4	5.22E-5	1.12E+0	3.92E-4	5.30E-2	4.81E-5	-5.93E-1	5.81E-1
PM	disease inc.	2.78E-8	8.34E-10	9.08E-12	2.87E-8	7.50E-10	6.35E-9	4.95E-11	-1.58E-8	2.00E-8
IR	kBq U-235 eq	4.06E-2	6.20E-4	1.02E-6	4.13E-2	5.58E-4	4.86E-3	3.30E-5	-2.07E-2	2.60E-2
ETP-fw	CTUe	2.45E+1	1.15E-1	1.21E-2	2.47E+1	1.04E-1	1.04E+1	1.14E-1	-9.40E+0	2.59E+1
HTP-c	CTUh	6.78E-10	4.10E-12	6.17E-13	6.83E-10	3.69E-12	1.57E-10	2.00E-13	-2.67E-10	5.77E-10
HTP-nc	CTUh	2.03E-8	1.37E-10	1.57E-11	2.04E-8	1.24E-10	3.66E-9	2.19E-11	-7.95E-9	1.63E-8
SQP	Pt	1.57E+1	1.21E-1	2.24E-3	1.58E+1	1.09E-1	8.34E-1	1.84E-2	-1.96E+1	-2.80E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.81E+0	2.04E-3	2.40E-2	4.83E+0	1.83E-3	9.73E-2	2.68E-4	-3.47E+0	1.47E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.81E+0	2.04E-3	2.40E-2	4.83E+0	1.83E-3	9.73E-2	2.68E-4	-3.47E+0	1.47E+0
PENRE	MJ	1.94E+1	1.51E-1	1.44E-3	1.96E+1	1.35E-1	1.45E+0	7.64E-3	-1.03E+1	1.08E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.94E+1	1.51E-1	1.44E-3	1.96E+1	1.35E-1	1.45E+0	7.64E-3	-1.03E+1	1.08E+1
PET	MJ	2.42E+1	1.53E-1	2.55E-2	2.44E+1	1.37E-1	1.55E+0	7.90E-3	-1.38E+1	1.23E+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	1.32E-2	1.61E-5	1.46E-6	1.32E-2	1.44E-5	1.46E-3	8.81E-6	-7.47E-3	7.26E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.45E-5	3.63E-7	2.73E-13	9.49E-5	3.26E-7	2.26E-6	8.78E-9	-8.77E-6	8.87E-5
NHWD	kg	8.29E-2	8.79E-3	1.05E-6	9.17E-2	7.91E-3	5.06E-2	3.16E-2	-3.67E-2	1.45E-1
RWD	kg	3.61E-5	9.65E-7	1.10E-13	3.70E-5	8.68E-7	5.26E-6	4.68E-8	-1.87E-5	2.45E-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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