

Environmental Profile

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

Ecochain v3.5.80



Product: 3003146 - Wadal PVC Branch 45° GY 40 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	2.31E-1	3.22E-3	1.45E-4	2.34E-1	2.95E-3	1.32E-1	9.41E-4	-1.34E-1	2.35E-1
GWP-f	kg CO2 eq	2.61E-1	3.22E-3	1.46E-4	2.65E-1	2.94E-3	9.49E-2	9.41E-4	-1.41E-1	2.22E-1
GWP-b	kg CO2 eq	-3.09E-2	1.96E-6	-1.54E-6	-3.09E-2	1.79E-6	3.67E-2	1.18E-6	7.01E-3	1.28E-2
GWP-luluc	kg CO2 eq	2.79E-4	1.14E-6	1.49E-7	2.80E-4	1.04E-6	3.70E-5	2.50E-8	-1.53E-4	1.66E-4
ODP	kg CFC11 eq	1.27E-7	7.42E-10	8.26E-12	1.28E-7	6.78E-10	1.02E-8	3.49E-11	-6.52E-8	7.34E-8
AP	mol H+ eq	1.26E-3	1.83E-5	1.47E-6	1.28E-3	1.68E-5	1.75E-4	8.51E-7	-5.49E-4	9.20E-4
EP-fw	kg P eq	1.20E-5	2.65E-8	8.24E-9	1.21E-5	2.42E-8	1.24E-6	1.13E-9	-5.55E-6	7.79E-6
EP-m	kg N eq	2.23E-4	6.56E-6	1.55E-7	2.30E-4	6.00E-6	4.32E-5	5.23E-7	-1.01E-4	1.79E-4
EP-T	mol N eq	2.44E-3	7.23E-5	1.85E-6	2.51E-3	6.61E-5	4.77E-4	3.39E-6	-1.09E-3	1.97E-3
POCP	kg NMVOC eq	8.04E-4	2.07E-5	6.28E-7	8.25E-4	1.89E-5	1.42E-4	1.17E-6	-3.69E-4	6.18E-4
ADP-mm	kg Sb eq	2.47E-4	8.33E-8	1.97E-8	2.48E-4	7.62E-8	6.87E-7	8.57E-10	-2.71E-6	2.46E-4
ADP-f	MJ	6.33E+0	4.94E-2	1.36E-3	6.38E+0	4.52E-2	4.71E-1	2.55E-3	-3.32E+0	3.58E+0
WDP	m3 depriv.	3.94E-1	1.52E-4	5.22E-5	3.94E-1	1.39E-4	1.85E-2	1.82E-5	-1.95E-1	2.18E-1
PM	disease inc.	8.95E-9	2.91E-10	9.08E-12	9.25E-9	2.66E-10	2.16E-9	1.76E-11	-4.38E-9	7.32E-9
IR	kBq U-235 eq	1.39E-2	2.16E-4	1.02E-6	1.42E-2	1.98E-4	1.67E-3	1.17E-5	-6.60E-3	9.44E-3
ETP-fw	CTUe	7.50E+0	4.01E-2	1.21E-2	7.55E+0	3.67E-2	3.63E+0	4.00E-2	-2.48E+0	8.78E+0
HTP-c	CTUh	2.30E-10	1.43E-12	6.17E-13	2.32E-10	1.31E-12	5.50E-11	7.16E-14	-8.36E-11	2.05E-10
HTP-nc	CTUh	7.04E-9	4.79E-11	1.57E-11	7.10E-9	4.37E-11	1.27E-9	7.70E-12	-2.57E-9	5.86E-9
SQP	Pt	3.99E+0	4.23E-2	2.24E-3	4.04E+0	3.87E-2	2.89E-1	6.53E-3	-4.08E+0	2.91E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.31E+0	7.09E-4	2.40E-2	1.33E+0	6.48E-4	3.39E-2	9.43E-5	-7.39E-1	6.30E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.31E+0	7.09E-4	2.40E-2	1.33E+0	6.48E-4	3.39E-2	9.43E-5	-7.39E-1	6.30E-1
PENRE	MJ	6.79E+0	5.25E-2	1.44E-3	6.84E+0	4.80E-2	5.01E-1	2.71E-3	-3.58E+0	3.81E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.79E+0	5.25E-2	1.44E-3	6.84E+0	4.80E-2	5.01E-1	2.71E-3	-3.58E+0	3.81E+0
PET	MJ	8.10E+0	5.32E-2	2.55E-2	8.18E+0	4.86E-2	5.35E-1	2.80E-3	-4.32E+0	4.44E+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	4.63E-3	5.59E-6	1.46E-6	4.64E-3	5.11E-6	5.10E-4	3.12E-6	-2.24E-3	2.92E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.56E-5	1.26E-7	2.73E-13	3.57E-5	1.16E-7	7.73E-7	3.12E-9	-2.95E-6	3.36E-5
NHWD	kg	2.73E-2	3.06E-3	1.05E-6	3.03E-2	2.80E-3	1.77E-2	1.12E-2	-1.16E-2	5.03E-2
RWD	kg	1.23E-5	3.36E-7	1.10E-13	1.26E-5	3.07E-7	1.79E-6	1.66E-8	-5.93E-6	8.78E-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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