

Environmental Profile

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

Ecochain v3.5.80



Product: 3003191 - Wadal PVC Tee 45° GY 160 S/S/S
Unit: 1 piece
Manufacturer: Wavin - NL - Hardenberg - Verified
Address: J.C. Kellerlaan 3
7772 SG Hardenberg
Netherlands

LCA standard: NMD Bepalingsmethode 1.1 (2022)
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



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.

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 - NL - Hardenberg - Verified (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

ECI = Environmental Costs Indicator [euro]; **ADPE** = Abiotic depletion potential for non-fossil resources [kg Sb-eq]; **ADPF** = Abiotic depletion potential for fossil resources [kg Sb-eq]; **GWP** = Global warming potential [kg CO2-eq]; **ODP** = Depletion potential of the stratospheric ozone layer [kg CFC-11-eq]; **POCP** = Formation potential of tropospheric ozone photochemical oxidants [kg ethene-eq]; **AP** = Acidification potential of land and water [kg SO2-eq]; **EP** = Eutrophication potential [kg PO4 3--eq]; **HTP** = Human toxicity potential [kg 1,4-DB-eq]; **FAETP** = Freshwater aquatic ecotoxicity potential [kg 1,4-DB-eq]; **MAETP** = Marine aquatic ecotoxicity potential [kg 1,4-DB-eq]; **TETP** = Terrestrial ecotoxicity potential [kg 1,4-DB-eq]; **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 SBK set 1	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
ECI	euro	0.33	0	0.02	0.35	0	0.11	0	-0.17	0.3
ADPE	kg Sb-eq	2.99E-3	1.05E-6	4.64E-6	3.00E-3	9.83E-7	8.93E-6	1.10E-8	-3.42E-5	2.98E-3
ADPF	kg Sb-eq	3.50E-2	3.02E-4	7.97E-4	3.61E-2	2.77E-4	3.08E-3	1.52E-5	-1.92E-2	2.03E-2
GWP	kg CO2-eq	2.94E+0	4.10E-2	1.51E-1	3.13E+0	3.77E-2	1.05E+0	1.03E-2	-1.65E+0	2.58E+0
ODP	kg CFC-11-eq	1.66E-6	7.28E-9	1.20E-8	1.68E-6	6.99E-9	1.29E-7	3.63E-10	-8.36E-7	9.77E-7
POCP	kg ethene-eq	1.68E-3	2.47E-5	6.57E-5	1.77E-3	2.26E-5	2.43E-4	2.68E-6	-8.57E-4	1.18E-3
AP	kg SO2-eq	1.18E-2	1.80E-4	6.50E-4	1.26E-2	1.62E-4	1.80E-3	8.19E-6	-5.63E-3	8.93E-3
EP	kg PO4 3--eq	1.51E-3	3.54E-5	8.36E-5	1.63E-3	3.24E-5	2.73E-4	3.23E-6	-7.61E-4	1.18E-3
HTP	kg 1,4-DB-eq	1.15E+0	1.73E-2	7.03E-2	1.24E+0	1.61E-2	4.68E-1	8.60E-4	-5.38E-1	1.18E+0
FAETP	kg 1,4-DB-eq	3.47E-2	5.04E-4	2.40E-3	3.76E-2	4.72E-4	7.11E-3	2.65E-4	-1.51E-2	3.04E-2
MAETP	kg 1,4-DB-eq	8.11E+1	1.81E+0	9.46E+0	9.24E+1	1.69E+0	2.45E+1	3.24E-1	-3.48E+1	8.41E+1
TETP	kg 1,4-DB-eq	8.51E-3	6.10E-5	5.23E-3	1.38E-2	5.71E-5	1.67E-3	2.89E-6	-5.03E-3	1.05E-2
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.04E+0	4.14E-2	1.73E-1	3.25E+0	3.80E-2	1.12E+0	1.21E-2	-1.55E+0	2.87E+0
GWP-f	kg CO2 eq	3.00E+0	4.14E-2	1.33E-1	3.18E+0	3.80E-2	1.06E+0	1.21E-2	-1.69E+0	2.60E+0
GWP-b	kg CO2 eq	3.00E-2	1.91E-5	2.75E-2	5.75E-2	2.31E-5	6.27E-2	1.53E-5	1.35E-1	2.55E-1
GWP-luluc	kg CO2 eq	3.38E-3	1.52E-5	1.26E-2	1.60E-2	1.35E-5	4.80E-4	3.17E-7	-2.07E-3	1.45E-2
ODP	kg CFC11 eq	1.63E-6	9.13E-9	1.41E-8	1.66E-6	8.76E-9	1.33E-7	4.50E-10	-8.27E-7	9.73E-7
AP	mol H+ eq	1.43E-2	2.40E-4	8.11E-4	1.54E-2	2.17E-4	2.26E-3	1.10E-5	-6.82E-3	1.10E-2
EP-fw	kg P eq	1.45E-4	4.17E-7	2.33E-6	1.48E-4	3.13E-7	1.61E-5	1.43E-8	-7.25E-5	9.21E-5
EP-m	kg N eq	2.57E-3	8.45E-5	1.92E-4	2.84E-3	7.75E-5	5.51E-4	6.79E-6	-1.22E-3	2.26E-3
EP-T	mol N eq	2.76E-2	9.32E-4	2.11E-3	3.07E-2	8.54E-4	6.07E-3	4.37E-5	-1.31E-2	2.46E-2
POCP	kg NMVOC eq	8.85E-3	2.66E-4	6.01E-4	9.71E-3	2.44E-4	1.82E-3	1.50E-5	-4.36E-3	7.43E-3
ADP-mm	kg Sb eq	2.99E-3	1.05E-6	4.64E-6	3.00E-3	9.83E-7	8.93E-6	1.10E-8	-3.42E-5	2.97E-3
ADP-f	MJ	7.46E+1	6.24E-1	1.49E+0	7.67E+1	5.83E-1	6.09E+0	3.29E-2	-4.05E+1	4.29E+1
WDP	m3 depriv.	4.95E+0	2.23E-3	1.15E+0	6.11E+0	1.79E-3	2.42E-1	2.13E-4	-2.55E+0	3.80E+0
PM	disease inc.	9.66E-8	3.71E-9	1.00E-8	1.10E-7	3.43E-9	2.79E-8	2.26E-10	-5.26E-8	8.93E-8
IR	kBq U-235 eq	1.71E-1	2.61E-3	2.36E-3	1.76E-1	2.55E-3	2.16E-2	1.51E-4	-8.45E-2	1.16E-1
ETP-fw	CTUe	9.17E+1	5.56E-1	3.45E+0	9.58E+1	4.74E-1	4.75E+1	5.25E-1	-3.35E+1	1.11E+2
HTP-c	CTUh	2.49E-9	1.80E-11	1.20E-10	2.63E-9	1.69E-11	6.77E-10	9.08E-13	-9.43E-10	2.38E-9
HTP-nc	CTUh	8.24E-8	6.08E-10	3.73E-9	8.67E-8	5.65E-10	1.64E-8	1.01E-10	-3.26E-8	7.12E-8
SQP	Pt	1.56E+1	5.41E-1	1.11E-1	1.62E+1	4.99E-1	3.71E+0	8.42E-2	-3.03E+1	-9.79E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.94E+0	7.81E-3	7.23E+0	1.22E+1	8.37E-3	4.41E-1	1.23E-3	-6.44E+0	6.19E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.94E+0	7.81E-3	7.23E+0	1.22E+1	8.37E-3	4.41E-1	1.23E-3	-6.44E+0	6.19E+0
PENRE	MJ	8.01E+1	6.62E-1	1.61E+0	8.23E+1	6.19E-1	6.48E+0	3.49E-2	-4.36E+1	4.59E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.01E+1	6.62E-1	1.61E+0	8.23E+1	6.19E-1	6.48E+0	3.49E-2	-4.36E+1	4.59E+1
PET	MJ	8.50E+1	6.70E-1	8.84E+0	9.45E+1	6.28E-1	6.92E+0	3.61E-2	-5.00E+1	5.21E+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	5.55E-2	7.60E-5	2.72E-2	8.28E-2	6.60E-5	6.62E-3	4.03E-5	-2.99E-2	5.96E-2
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.30E-4	1.58E-6	1.58E-6	4.33E-4	1.49E-6	9.96E-6	4.00E-8	-3.43E-5	4.11E-4
NHWD	kg	3.13E-1	3.96E-2	2.44E-3	3.55E-1	3.62E-2	2.19E-1	1.45E-1	-1.36E-1	6.19E-1
RWD	kg	1.49E-4	4.10E-6	2.93E-6	1.56E-4	3.97E-6	2.31E-5	2.14E-7	-7.51E-5	1.08E-4
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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