

Environmental Profile

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

Ecochain v3.5.80



Product: 3021208 - PVC KGFix Bend 15° GY 315 SN4 S/SP
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



The Wavin KG sewer pipes and fittings are suitable for drain and underground sewer applications. This easy push-fit rubber ring jointing system is durable, corrosion free and light weight.

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					D Reuse- Recovery- Recycling- potential											
A5 Assembly / Construction installation process																

Results

Environmental impact SBK set 1	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
ECI	euro	1	0.01	0.05	1.06	0.01	0.31	0	-0.46	0.92
ADPE	kg Sb-eq	7.86E-3	2.89E-6	1.20E-5	7.88E-3	2.58E-6	2.33E-5	2.97E-8	-9.70E-5	7.81E-3
ADPF	kg Sb-eq	1.01E-1	8.32E-4	2.06E-3	1.04E-1	7.27E-4	7.98E-3	4.12E-5	-5.21E-2	6.05E-2
GWP	kg CO2-eq	8.62E+0	1.13E-1	3.91E-1	9.13E+0	9.90E-2	3.35E+0	2.87E-2	-4.57E+0	8.03E+0
ODP	kg CFC-11-eq	4.34E-6	2.01E-8	3.09E-8	4.40E-6	1.84E-8	3.32E-7	9.83E-10	-2.16E-6	2.58E-6
POCP	kg ethene-eq	5.28E-3	6.82E-5	1.70E-4	5.52E-3	5.94E-5	6.39E-4	7.38E-6	-2.32E-3	3.90E-3
AP	kg SO2-eq	3.74E-2	4.97E-4	1.68E-3	3.95E-2	4.26E-4	4.72E-3	2.22E-5	-1.53E-2	2.94E-2
EP	kg PO4 3--eq	5.07E-3	9.77E-5	2.16E-4	5.39E-3	8.51E-5	7.32E-4	9.84E-6	-2.19E-3	4.02E-3
HTP	kg 1,4-DB-eq	3.43E+0	4.76E-2	1.82E-1	3.66E+0	4.23E-2	1.21E+0	2.33E-3	-1.45E+0	3.47E+0
FAETP	kg 1,4-DB-eq	1.75E-1	1.39E-3	6.20E-3	1.83E-1	1.24E-3	1.85E-2	7.14E-4	-4.46E-2	1.58E-1
MAETP	kg 1,4-DB-eq	2.45E+2	5.00E+0	2.44E+1	2.75E+2	4.43E+0	6.47E+1	8.71E-1	-9.35E+1	2.51E+2
TETP	kg 1,4-DB-eq	4.03E-2	1.68E-4	1.35E-2	5.39E-2	1.50E-4	4.31E-3	7.87E-6	-1.49E-2	4.35E-2
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	8.34E+0	1.14E-1	4.47E-1	8.90E+0	9.99E-2	3.91E+0	3.35E-2	-4.11E+0	8.82E+0
GWP-f	kg CO2 eq	8.80E+0	1.14E-1	3.44E-1	9.26E+0	9.98E-2	3.37E+0	3.34E-2	-4.66E+0	8.10E+0
GWP-b	kg CO2 eq	-4.83E-1	5.27E-5	7.09E-2	-4.12E-1	6.06E-5	5.39E-1	4.15E-5	5.55E-1	6.82E-1
GWP-luluc	kg CO2 eq	1.90E-2	4.18E-5	3.26E-2	5.16E-2	3.53E-5	1.23E-3	8.59E-7	-6.76E-3	4.61E-2
ODP	kg CFC11 eq	4.32E-6	2.52E-8	3.63E-8	4.38E-6	2.30E-8	3.43E-7	1.22E-9	-2.15E-6	2.60E-6
AP	mol H+ eq	4.54E-2	6.61E-4	2.09E-3	4.81E-2	5.68E-4	5.94E-3	2.97E-5	-1.86E-2	3.61E-2
EP-fw	kg P eq	4.87E-4	1.15E-6	6.02E-6	4.95E-4	8.21E-7	4.13E-5	3.89E-8	-2.04E-4	3.33E-4
EP-m	kg N eq	8.14E-3	2.33E-4	4.95E-4	8.87E-3	2.03E-4	1.48E-3	2.09E-5	-3.40E-3	7.18E-3
EP-T	mol N eq	8.65E-2	2.57E-3	5.46E-3	9.45E-2	2.24E-3	1.63E-2	1.18E-4	-3.67E-2	7.64E-2
POCP	kg NMVOC eq	2.73E-2	7.34E-4	1.55E-3	2.96E-2	6.41E-4	4.85E-3	4.09E-5	-1.20E-2	2.31E-2
ADP-mm	kg Sb eq	7.86E-3	2.89E-6	1.20E-5	7.88E-3	2.58E-6	2.33E-5	2.97E-8	-9.70E-5	7.81E-3
ADP-f	MJ	2.13E+2	1.72E+0	3.84E+0	2.18E+2	1.53E+0	1.58E+1	8.91E-2	-1.10E+2	1.26E+2
WDP	m3 depriv.	1.35E+1	6.15E-3	2.97E+0	1.65E+1	4.70E-3	6.24E-1	5.67E-4	-6.81E+0	1.03E+1
PM	disease inc.	3.41E-7	1.02E-8	2.59E-8	3.77E-7	9.01E-9	7.30E-8	6.13E-10	-1.55E-7	3.05E-7
IR	kBq U-235 eq	5.05E-1	7.21E-3	6.10E-3	5.19E-1	6.70E-3	5.60E-2	4.11E-4	-2.31E-1	3.51E-1
ETP-fw	CTUe	2.30E+2	1.53E+0	8.92E+0	2.40E+2	1.24E+0	1.22E+2	1.34E+0	-1.02E+2	2.63E+2
HTP-c	CTUh	6.91E-9	4.98E-11	3.09E-10	7.27E-9	4.43E-11	1.76E-9	2.46E-12	-2.54E-9	6.53E-9
HTP-nc	CTUh	2.26E-7	1.68E-9	9.64E-9	2.37E-7	1.48E-9	4.25E-8	2.60E-10	-8.75E-8	1.94E-7
SQP	Pt	5.95E+1	1.49E+0	2.87E-1	6.13E+1	1.31E+0	9.60E+0	2.28E-1	-1.15E+2	-4.30E+1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.78E+1	2.15E-2	1.87E+1	3.65E+1	2.20E-2	1.13E+0	3.38E-3	-2.33E+1	1.43E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.78E+1	2.15E-2	1.87E+1	3.65E+1	2.20E-2	1.13E+0	3.38E-3	-2.33E+1	1.43E+1
PENRE	MJ	2.28E+2	1.83E+0	4.15E+0	2.34E+2	1.63E+0	1.68E+1	9.46E-2	-1.18E+2	1.34E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.28E+2	1.83E+0	4.15E+0	2.34E+2	1.63E+0	1.68E+1	9.46E-2	-1.18E+2	1.34E+2
PET	MJ	2.46E+2	1.85E+0	2.28E+1	2.70E+2	1.65E+0	1.79E+1	9.80E-2	-1.41E+2	1.49E+2
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	1.71E-1	2.10E-4	7.03E-2	2.41E-1	1.73E-4	1.78E-2	1.09E-4	-8.44E-2	1.75E-1
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.11E-3	4.36E-6	4.08E-6	1.12E-3	3.92E-6	2.64E-5	1.08E-7	-9.51E-5	1.06E-3
NHWD	kg	8.91E-1	1.09E-1	6.30E-3	1.01E+0	9.49E-2	5.83E-1	3.92E-1	-3.65E-1	1.71E+0
RWD	kg	4.69E-4	1.13E-5	7.56E-6	4.88E-4	1.04E-5	6.03E-5	5.80E-7	-2.07E-4	3.51E-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