

Environmental Profile

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

Ecochain v3.5.80



Product: 3000423 - U3 Pipe GY KOMO 110 L=4 CH
Unit: 1 piece
Manufacturer: Wavin - NL - Hardenberg - Verified
Address: J.C. Kellerlaan 3
7772 SG Hardenberg
Netherlands

Multi-layer U3 PVC pipes from Wavin made with recycled PVC in the middle layer. The tubes contain at least 40% recycled material.

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



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	0.48	0.02	0.04	0.54	0.01	0.32	0	-0.13	0.75
ADPE	kg Sb-eq	1.17E-4	5.28E-6	7.49E-6	1.30E-4	3.17E-6	2.64E-5	3.28E-8	-1.97E-5	1.40E-4
ADPF	kg Sb-eq	4.83E-2	1.52E-3	2.01E-3	5.18E-2	8.94E-4	9.30E-3	4.65E-5	-1.70E-2	4.51E-2
GWP	kg CO2-eq	4.19E+0	2.07E-1	3.57E-1	4.76E+0	1.22E-1	3.08E+0	2.93E-2	-1.57E+0	6.42E+0
ODP	kg CFC-11-eq	2.03E-6	3.66E-8	3.36E-8	2.10E-6	2.26E-8	3.72E-7	1.12E-9	-5.33E-7	1.97E-6
POCP	kg ethene-eq	2.73E-3	1.25E-4	1.57E-4	3.02E-3	7.30E-5	7.36E-4	7.81E-6	-6.28E-4	3.20E-3
AP	kg SO2-eq	1.64E-2	9.08E-4	1.40E-3	1.87E-2	5.24E-4	5.34E-3	2.48E-5	-3.66E-3	2.10E-2
EP	kg PO4 3--eq	2.21E-3	1.78E-4	2.21E-4	2.61E-3	1.05E-4	8.11E-4	9.64E-6	-4.94E-4	3.04E-3
HTP	kg 1,4-DB-eq	1.59E+0	8.70E-2	1.35E-1	1.82E+0	5.21E-2	1.44E+0	2.55E-3	-3.44E-1	2.97E+0
FAETP	kg 1,4-DB-eq	2.07E-1	2.54E-3	5.49E-3	2.15E-1	1.53E-3	2.12E-2	7.78E-4	-7.14E-3	2.31E-1
MAETP	kg 1,4-DB-eq	1.23E+2	9.13E+0	2.24E+1	1.54E+2	5.45E+0	6.97E+1	9.44E-1	-2.10E+1	2.09E+2
TETP	kg 1,4-DB-eq	8.63E-2	3.07E-4	8.37E-3	9.50E-2	1.84E-4	5.12E-3	8.36E-6	-2.34E-3	9.80E-2
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.61E+0	2.08E-1	4.21E-1	4.24E+0	1.23E-1	3.95E+0	3.42E-2	-1.60E+0	6.74E+0
GWP-f	kg CO2 eq	4.28E+0	2.08E-1	3.29E-1	4.82E+0	1.23E-1	3.10E+0	3.41E-2	-1.60E+0	6.48E+0
GWP-b	kg CO2 eq	-6.94E-1	9.62E-5	7.12E-2	-6.23E-1	7.45E-5	8.40E-1	4.39E-5	-7.06E-3	2.10E-1
GWP-luluc	kg CO2 eq	2.34E-2	7.63E-5	2.01E-2	4.35E-2	4.34E-5	1.43E-3	9.16E-7	-7.65E-4	4.42E-2
ODP	kg CFC11 eq	2.01E-6	4.60E-8	3.98E-8	2.10E-6	2.83E-8	3.83E-7	1.39E-9	-5.35E-7	1.98E-6
AP	mol H+ eq	2.01E-2	1.21E-3	1.80E-3	2.31E-2	6.99E-4	6.70E-3	3.32E-5	-4.52E-3	2.60E-2
EP-fw	kg P eq	1.81E-4	2.10E-6	4.71E-6	1.88E-4	1.01E-6	4.76E-5	4.14E-8	-3.77E-5	1.99E-4
EP-m	kg N eq	3.99E-3	4.26E-4	5.29E-4	4.94E-3	2.50E-4	1.64E-3	2.04E-5	-8.93E-4	5.96E-3
EP-T	mol N eq	4.23E-2	4.69E-3	5.68E-3	5.27E-2	2.76E-3	1.81E-2	1.33E-4	-1.02E-2	6.35E-2
POCP	kg NMVOC eq	1.40E-2	1.34E-3	1.60E-3	1.69E-2	7.88E-4	5.43E-3	4.51E-5	-3.26E-3	1.99E-2
ADP-mm	kg Sb eq	1.17E-4	5.28E-6	7.49E-6	1.30E-4	3.17E-6	2.64E-5	3.28E-8	-1.97E-5	1.40E-4
ADP-f	MJ	1.02E+2	3.14E+0	3.81E+0	1.09E+2	1.88E+0	1.84E+1	1.01E-1	-3.43E+1	9.50E+1
WDP	m3 depriv.	6.14E+0	1.12E-2	2.58E+0	8.73E+0	5.78E-3	7.10E-1	5.39E-4	-1.42E+0	8.03E+0
PM	disease inc.	2.17E-7	1.87E-8	2.79E-8	2.63E-7	1.11E-8	8.44E-8	6.88E-10	-3.15E-8	3.28E-7
IR	kBq U-235 eq	2.13E-1	1.32E-2	6.88E-3	2.33E-1	8.23E-3	6.43E-2	4.62E-4	-4.90E-2	2.57E-1
ETP-fw	CTUe	7.13E+1	2.80E+0	6.36E+0	8.04E+1	1.53E+0	1.35E+2	1.49E+0	-1.79E+1	2.01E+2
HTP-c	CTUh	3.01E-9	9.09E-11	2.17E-10	3.32E-9	5.44E-11	2.02E-9	2.58E-12	-5.94E-10	4.80E-9
HTP-nc	CTUh	8.57E-8	3.06E-9	6.64E-9	9.54E-8	1.82E-9	4.81E-8	2.86E-10	-1.93E-8	1.26E-7
SQP	Pt	8.96E+1	2.73E+0	2.85E-1	9.27E+1	1.61E+0	1.16E+1	2.55E-1	-1.85E+1	8.76E+1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.60E+1	3.93E-2	1.15E+1	2.76E+1	2.70E-2	1.31E+0	3.62E-3	-4.21E+0	2.47E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.60E+1	3.93E-2	1.15E+1	2.76E+1	2.70E-2	1.31E+0	3.62E-3	-4.21E+0	2.47E+1
PENRE	MJ	1.09E+2	3.34E+0	4.13E+0	1.17E+2	2.00E+0	1.96E+1	1.07E-1	-3.73E+1	1.01E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.09E+2	3.34E+0	4.13E+0	1.17E+2	2.00E+0	1.96E+1	1.07E-1	-3.73E+1	1.01E+2
PET	MJ	1.25E+2	3.38E+0	1.56E+1	1.44E+2	2.03E+0	2.09E+1	1.10E-1	-4.15E+1	1.26E+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	7.06E-2	3.83E-4	6.07E-2	1.32E-1	2.13E-4	1.95E-2	1.23E-4	-1.56E-2	1.36E-1
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.63E-5	7.96E-6	5.34E-6	9.96E-5	4.82E-6	2.97E-5	1.21E-7	-3.18E-5	1.02E-4
NHWD	kg	4.27E-1	1.99E-1	7.70E-3	6.34E-1	1.17E-1	6.93E-1	4.67E-1	-8.36E-2	1.83E+0
RWD	kg	1.95E-4	2.06E-5	9.59E-6	2.25E-4	1.28E-5	6.92E-5	6.58E-7	-4.49E-5	2.63E-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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