



**Technical Data Sheet: CX01 ABS SERIES 3D PRINTING FILAMENT**

**BASE RESIN:** CHIMEI General ABS POLYLAC Ultra-High Impact Strength

Physical Properties	Standard	Unit	Typical Value
Specific Gravity - Density	ASTM D792	g/cm <sup>3</sup>	1.03
Melt Density @220°C, 10KG	ASTM D1133	g/10 min	13
UL Flammability Class. @1.5mm	UL 94	N/A	94HB

Mechanical Properties	Standard	Unit	Typical Value
Tensile Yield Strength	ASTM D638	MPa	40
Tensile Modulus	ASTM D638	MPa	2350
Tensile Elongation	ASTM D638	%	35
Flexural Stress	ISO 178	MPa	58
Notched Izod Impact	ASTM D256	J/m	285
Shrinkage Rate < 1%	ASTM D955	mm/mm	0.40 - 0.70%

Thermal Properties	Standard	Unit	Typical Value
Glass Transition Temperature (Tg)	DSC	°C	105
Heat Distortion Temp @ 0.45MPa	ASTM D648	°C	85
Decomposition Temperature	ASTM 3418	°C	300

SPECIFICATIONS				
Filament Size:	1.75mm	0.0689 in	2.85mm	0.1122 in
MIN Diameter:	1.72mm	0.0677 in	2.79mm	0.1098 in
MAX Diameter:	1.78mm	0.0701 in	2.91mm	0.1146 in
Tolerance				
Standard Dev.	+/- .03mm	+/- 0.0012 in	+/- .06mm	+/- 0.0024 in
Ovality				

CERTIFICATIONS
ROHS compliant to (2011/65/EU), 2003/11/EC, TCO'07, Blue Angel and SONY Std. (SS-00259)
NSF/ANSI/CAN 61 Drinking Water System Components
UL / C-UL Certified Yellow Card E56070

Printed Specimen Conditions
Printer: Open Source FDM/FFF
Nozzle: 0.4mm
Layer Height: 0.25mm
Infill: 100%, +/-45°
Extrusion Temp: 240°C
Bed Temp: 90°C
Specimen Orientation: XY Flat
Unannealed

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