



TDS Rev 1.0

**Technical Data Sheet: CX17 COEX-FLEX TPU 60A SERIES 3D PRINTING FILAMENT**

**BASE RESIN: BASF ELASTOLLAN**

Physical Properties	Standard	Unit	Typical Value
Specific Gravity - Density	ISO 1183	g/cm <sup>3</sup>	1.17
Melting Temperature, 10°C/min	ISO 11357-1/-3	°C	150
Vicat Softening Temp, 50°C/h, 10N	ISO 306	°C	70
Hardness, Shore A (max)	ISO 868	-	60

Mechanical Properties	Standard	Unit	Typical Value
Tensile Stress @ Break	ISO 527 Type 1BA	MPa	27
Tensile Modulus	ISO 527 Type 1A	MPa	35
Nominal Strain @ Break	ISO 527 Type 1BA	%	1000
Tensile Stress @ 100%	ISO 527 Type 1BA	MPa	1.5
Notched & Unnotched Izod Impact	ISO 180/1A	J/m	No Break
Shrinkage Rate < 0.5%	ISO 294-4	mm/mm	0.50 – 0.80%

Thermal Properties	Standard	Unit	Typical Value
Glass Transition Temperature (Tg)	ISO 11357-2	°C	-60.0
Melt Temperature		°C	170
Drying Temperature @ 4 hours		°C	55

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				

ADVANTAGES
Resilient, Flexible, Heat Resistant, Chemical Resistant, Strong, Durable
Contains up to 60% renewably sourced materials from biomass
Combines the flexibility of rubber with the strength and processability of thermoplastics

Printed Specimen Conditions
Printer: Open Source FDM/FFF
Nozzle: 0.4mm
Layer Height: 0.25mm
Infill: 100%, +/-45°
Extrusion Temp: 205 - 225°C (Do not exceed 230C)
Bed Temp: 00°C
Specimen Orientation: XY Flat and Vertical
Printing Speed 15mm/sec..

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