

Version: 3.0

Product Name:

Anycubic ABS

Anycubic ABS is a widely used consumer-grade filament that offers several advantages. It can withstand temperatures up to 85°C and is known for its high toughness and impressive printing success rates. Additionally, it features enhanced anti-warping properties, which help prevent corner lifting, even when printing models with a size of 220mm x 220mm.

Physical Properties

Property	Testing Method	Unit	Typical Value
Density/ (g/cm³)	ISO 1183,at 23°C	g/cm³	1.05
Melt Index/ (g/10min)	ISO 1133	g/10min	32.1±0.63
Moisture Content	ISO 787-2	%	0.25

Mechanical Properties

Property	Testing Method	Unit	Typical Value
Tensile Strength / MPa (X-Y)	ISO 527	МРа	34
Tensile Strength / MPa (Z)	130 327		22
Young's Modulus / MPa (X-Y)	ISO 527	МРа	2200
Young's Modulus / MPa (Z)	150 527		1
Elongation at Break / % (X-Y)	ISO 527	%	11
Elongation at Break / % (Z)	150 527		1
Bending Strength / MPa (X-Y)	ISO 178	МРа	63
Bending Strength / MPa (Z)	130 176		1
Bending Modulus / MPa (X-Y)	ISO 178	МРа	2200
Bending Modulus / MPa (Z)	130 176		/
Izod Impact Strength (kJ/m²) (X-Y)		kJ/m²	40
Izod Impact Strength (kJ/m²) (Z)	ISO 179		/

^{*}All data are based on printed test samples. '(X-Y)' and '(Z)' indicate different testing orientations (refer to the direction schematic).



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Thermal Performance

Property	Testing Method	Unit	Typical Value
Glass Transition Temperature	ISO 11357-1, 10℃/min	$^{\circ}$	105
Melting Temperature	ISO 11357-1, 10℃/min	$^{\circ}\!\mathbb{C}$	/
Crystallization Temperature	ISO 11357-1, 10℃/min	$^{\circ}$ C	/
Vicat Softening Temperature (VST)	ISO 306, 10N	$^{\circ}\!\mathbb{C}$	95
Heat Deflection Temperature (HDT)	ISO 75-2, 1.8 MPa	${\mathbb C}$	/
Heat Deflection Temperature (HDT)	ISO 75-2, 0.45MPa	${\mathbb C}$	85

Recommended Printing Parameters

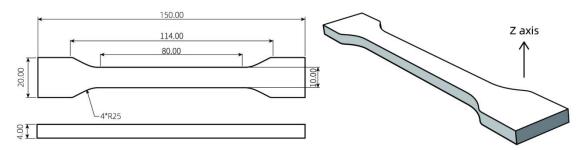
*Based on a 0.4mm nozzle, printing conditions may vary with different nozzle diameters

Parameter	Recommended Value	
Nozzle Temperature	240-280	
Bed Temperature	80-100	
Dry Environment	70-80℃, 8-12h	
Printing Speed	50-150	
Extrusion Multiplier	0.95	
Max Volumetric Flow Rate	15	
Fan Speed	80%	
Cooling Time	3	
Minimum printing Speed	20	
Raft Separation Distance	0.8	
Retraction Speed	40	

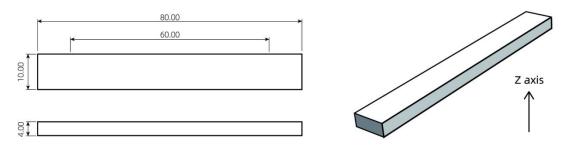


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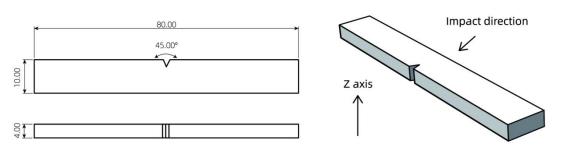
TENSILE TESTING SPECIMEN



FLEXURAL TESTING SPECIMEN



IMPACT TESTING SPECIMEN



Disclaimer:

The values shown in this chart are for comparison purposes only and are not appropriate for design specifications or quality assurance. Variations may arise due to printing conditions. The end-use performance of printed parts depends on materials, design, environmental conditions, and printing conditions. Please note that product specifications are subject to change without notice.

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