ERYONE Technical Data Sheet - ABS

Product description: It is a material with low cost and good mechanical properties; ABS has good toughness and impact resistance, which can print strong and durable parts: It has high thermal deformation temperature and can be used in some outdoor and high temperature applications.

Material Status	**Mass Production**	
Characteristics	.low cost	.heat resistance
	.sturdy and durable	.high toughness
	.High impact resistance	
Applications	.machinery	.toy
	.mould	.automobile
	.electric products	
Form	.Filament	
Processing method	.3D Print , FDM Print	

	testing method	Typical value
Physical Properties		
Density	GB/T 1033	1.04 g/cm
Melt Flow Index	GB/T 3682	12 （190°℃/2.16kg)
Mechanical Properties		
Tensile Strength	GB/T 1040	43 MPa
Elongation at Break	GB/T 1040	22 %
Flexural Strength	GB/T 9341	66 MPa
Flexural Modulus	GB/T 9341	1177 MPa
IZOD Impact Strength	GB/T 1843	29 kJ/m^2
Thermal Properties		
Heat distortion Temperature	GB/T 1634	78 ° C
Continuous Service Temperature	IEC 60216	N/A
Maximum (short term) Use Temperature		N/A
Electrical Properties		
Insulation Resistance	DIN IEC 60167	N/A
Surface Resistance	DIN IEC 60093	N/A
Recommended printing parameters		
Extruder Temperature	230-270°℃	
Build Platform Temperature	95-110°℃	
Fan Speed	100%	
Printing Speed	40-100mm/s	

Based on 0.4 mm nozzle and Simplify 3D v.4.1.2. Printing conditions may vary with different nozzle diameters

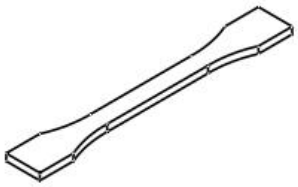
Drying Recommendations

N/A

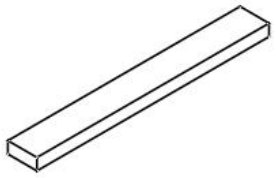
Precautions:

ABS material has large shrinkage rate, so please pay attention to heat preservation when printing, and print it in printers with closed chamber.

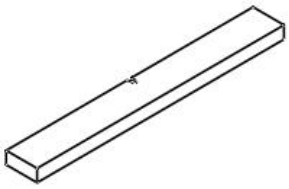
Mechanical Properties



Tensile testing specimen GB/T 1040



Flexural testing specimen GB/T 9341



Impact testing specimen GB/T 1043

The physical properties, mechanical properties, thermal properties, and electrical properties of the line are obtained based on the injection molding spline test.

Print test condition:

Extruder Temperature	230-270	℃
Build Platform Temperature	95	℃
Outline/Perimeter Shells	4	
Top/Bottom Layers	4	
Infill Percentage	20	%
Fan speed	100	%
Printing speed	40	mm/s

Based on 0.4 mm nozzle and Simplify 3D v.4.1.2.

Notice

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