

# ABS Odorless

## Technical Data Sheet

Based on the modification of ABS material, it retains good mechanical properties, lower odor and lower shrinkage rate than conventional ABS materials. With low VOC volatile content, low odor during printing, comfortable printing without pressure; good toughness and impact resistance, it can be used to print sturdy and durable parts; low shrinkage, not easy to warp and crack during printing.

Material Status	Mass Production		
Characteristics	<ul style="list-style-type: none"> <li>• Low odor</li> <li>• Sturdy and durable</li> <li>• Heat resistance</li> </ul>	<ul style="list-style-type: none"> <li>• High toughness</li> <li>• Low shrinkage</li> <li>• High impact resistance</li> </ul>	<ul style="list-style-type: none"> <li>• Excellent printability</li> </ul>
Applications	<ul style="list-style-type: none"> <li>• Machinery</li> <li>• Mould</li> <li>• Toy</li> </ul>	<ul style="list-style-type: none"> <li>• Automobile</li> <li>• Electronic appliances</li> </ul>	
Form	<ul style="list-style-type: none"> <li>• Filament</li> </ul>		
Processing method	<ul style="list-style-type: none"> <li>• 3D Print, FDM Print</li> </ul>		

	testing method	Typical value	
<b>Physical Properties</b>			
Density	GB/T 1033	1.04	g/cm <sup>3</sup>
Melt Flow Index	GB/T 3682	26.7	(220°C/10kg)
<b>Mechanical Properties</b>			
Tensile Strength	GB/T 1040	46.8	MPa
Elongation at Break	GB/T 1040	24.4	%
Flexural Strength	GB/T 9341	54.9	MPa
Flexural Modulus	GB/T 9341	1234	MPa
IZOD Impact Strength	GB/T 1843	24.3	kJ/m <sup>2</sup>
<b>Thermal Properties</b>			
Heat distortion Temperature	GB/T 1634	73	°C
Continuous Service Temperature	IEC 60216	N/A	
Maximum (short term) Use Temperature		N/A	
<b>Electrical Properties</b>			
Insulation Resistance	DIN IEC 60167	N/A	
Surface Resistance	DIN IEC 60093	N/A	

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### Recommended printing parameters

Extruder Temperature	240 - 250°C
Build Platform Temperature	95-110°C
Fan Speed	0-15%
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

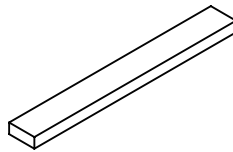
### Precautions:

1. The shrinkage rate of ABS Odorless material is large, so you should pay attention to heat preservation when printing, and print in a printer with a closed chamber.
2. The cooling of ABS Odorless is slightly worse. You can turn on a fan to improve the printing effect, or reduce the drape angle structure in the model; or try to reduce the speed to print

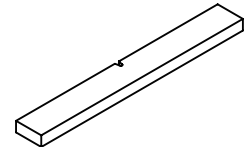
### Mechanical Properties



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	240-250°C
Build Platform Temperature	95°C
Outline/Perimeter Shells	4
Top/Bottom Layers	4
Infill Percentage	20%
Fan speed	15%
Printing speed	40mm/s

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

### Notice

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