

eLastic

Technical Data Sheet

Flexible TPE printing consumables with hardness of 83A are sturdy and durable; Printed models are softer than TPU-95A and eFlex, with delicate and soft hand feeling, also low surface friction.

Material Status	Mass Production		
Characteristics	<ul style="list-style-type: none"> • Matte surface effect • Skin-friendly feel • Flexible and soft 	<ul style="list-style-type: none"> • Sturdy and durable • High elasticity • High tenacity 	<ul style="list-style-type: none"> • High impact resistance
Applications	<ul style="list-style-type: none"> • Shoes materials • Machinery 	<ul style="list-style-type: none"> • Automobile • Electric products 	<ul style="list-style-type: none"> • Running piping • Sporting goods
Form	<ul style="list-style-type: none"> • Filament 		
Processing method	<ul style="list-style-type: none"> • 3D Print, FDM Print 		

	Testing method	Typical value	
Physical Properties			
Density	GB/T 1033	1.14	g/cm ³
Melt Flow Index	GB/T 3682	N/A	
Mechanical Properties			
Tensile Strength	GB/T 1040	32	MPa
Elongation at Break	GB/T 1040	420	%
Flexural Strength	GB/T 9341	N/A	
Flexural Modulus	GB/T 9341	N/A	
IZOD Impact Strength	GB/T 1843	N/A	
Thermal Properties			
Heat distortion Temperature	GB/T 1634	N/A	
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	

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Recommended printing parameters

Extruder Temperature	220 - 250°C
Build Platform Temperature	45 - 60°C
Fan Speed	100%
Printing Speed	20 - 50mm/s

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

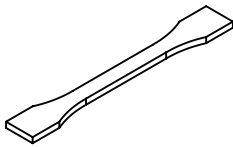
Drying Recommendations

N/A

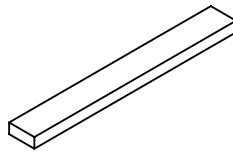
Notes

1. It is recommended to dry the filaments (55°C/> 4h) before printing to achieve the best printing effect, and it would be better to use together with eBOX when printing.
2. It is recommended to use a short-range double-wheel deceleration extruder designed for flexibility, and eElastic materials cannot be printed by a remote extruder.
3. After a long printing time, impurities may remain in the nozzle, so it is recommended to use it with cleaning filament. If necessary, please replace the nozzle and throat with new ones.

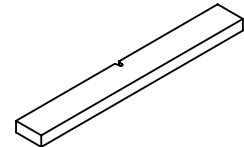
Mechanical Properties



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 filament are obtained based on the injection molding spline test.

Print test condition:

Extruder Temperature	210-250°C
Build Platform Temperature	45°C
Outline/Perimeter Shells	4
Top/Bottom Layers	4
Infill Percentage	20%
Fan speed	100%
Printing speed	40mm/s

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

Notice

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