eABS+HS

Technical Data Sheet

eABS+HS is a modified version of ABS material. Compared to conventional ABS, it exhibits lower shrinkage and superior interlayer adhesion, reducing the likelihood of warping and cracking during printing. It contains low VOC (Volatile Organic Compounds) components, resulting in a reduced odor during the printing process, making it more comfortable and stress-free. This material is optimized for high-speed printing, maintaining its performance even at higher speeds, providing an excellent printing experience. Additionally, it can be acetone polished to eliminate layer lines and further enhance the print quality.

Material Status	Mass Production	
Characteristics	• Heat resistance • Low odor • Low shrinkage rate	• Strong performance and toughness • High speed printing • Acetone polishing is available
Applications	• machine • mold • toy	• Electrical and electronic • appliances • Car
Form	• Filament	
Processing method	• 3D Print, FDM Print	

	testing method	Typical value	
Physical Properties			
Density	GB/T 1033	1.04	g/cm³
Melt Flow Index	GB/T 3682	6	(190°C/2.16kg)
Mechanical Properties			
Tensile Strength	GB/T 1040	39	MPa
Elongation at Break	GB/T 1040	21	%
Flexural Strength	GB/T 9341	58	MPa
Flexural Modulus	GB/T 9341	1906	MPa
IZOD Impact Strength	GB/T 1843	41	kJ/m²
Thermal Properties			
Heat distortion Temperature	GB/T 1634	89	°C（0.45Mpa）
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	

Wuhan University Building A403-I,A901,No.6 Yuexing 2 Road,Nanshan District,Shenzhen,Guangdong

China

Tel +86 755 86581960
fax +86 755 26031982
Email: bright@brightcn.net

www.esun3d.com

Recommended printing parameters

Extruder Temperature	230 - 270°C
Build Platform Temperature	100-110°C
Fan Speed	100%
Printing Speed	50-300mm/s

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

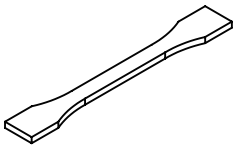
Drying Recommendations

N/A

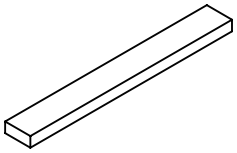
Precautions:

When slicing, it is best to turn on the Z seam alignment and starting point alignment functions, turn off the Z-axis lift and exit, avoid passing through the shell when idling, optimize the slicing printing path, and appropriately reduce the printing speed to achieve the best printing effect.

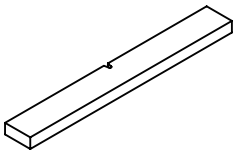
Mechanical Properties



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	250°C
Build Platform Temperature	45°C
Outline/Perimeter Shells	4
Top/Bottom Layers	4
Infill Percentage	20%
Fan speed	100%
Printing speed	50mm/s

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

Notice

All information supplied by or on behalf of eSUN in relation to this product, whether in the nature of data, recommendations or otherwise, is supported by research and, in good faith, believed reliable, but the product is sold “as is”. eSUN assumes no liability and makes no representations or warranties, express or implied, of merchantability, fitness for a particular purpose, or of any other nature with respect to information or the product to which information refers and nothing herein waives any of the seller's conditions of sale.

Wuhan University Building A403-I,A901,No.6 Yuexing 2 Road,Nanshan District,Shenzhen,Guangdong

China

Tel +86 755 86581960
fax +86 755 26031982
Email: bright@brightcn.net

www.esun3d.com