eResin-Flex

Technical Data Sheet

High elongation at break, good elasticity, tear resistance, tensile, bending and compression, quick rebound, a certain wear resistance. Relative high success rate of release, easy to print.The parts are soft and elastic, resistant to bending.-Can be used on product models that require softness.

Material Status	Mass Production		
Characteristics	• Good elasticity • Tear resistance	• Bending resistant • High toughness	
Applications	• Mechanical • Automobile	• Electronic appliances • Conveying pipeline	• Sporting goods
Appearance	• Multiple Colors		
Form	• Resins		
Processing method	• (surface exposure molding) LCD		

	Testing method	Typical value	
Physical Properties			
Density	GB/T 4472	1.02-1.05	g/cm³
Viscosity	GB/T 22235	600-1400	mPa•s
Hardness	ASTM D2240	60-90A	Shore D
Mechanical Properties			
Tensile Strength	ASTM D638	4-10	MPa
Elongation at Break	ASTM D638	100-350	%
Flexural Strength	ASTM D790	N/A	MPa
IZOD Impact Strength	ASTM D638	N/A	J/m
Thermal Properties			
Heat distortion Temperature	GB/T 1634	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.net

Recommended printing parameters

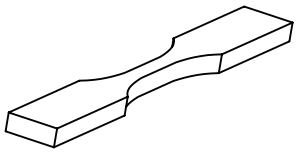
Settings	Machine Type Low Light Intensity	Medium Light Intensity	High Light Intensity (Monochrome LCDScreen)
Representative Machine	AnyCubic Photon	eSUN LCD 3.0 Nova Bene 4 Creality LD-002R	Anycubic MONO X ELEGOO Saturn Phrozen Sonic Mini
Exposure Time/s	8-10	5-6	Not recommended
Bottom Layer Count		3-5	
Bottom Exposure Time	40-70	30-40	Not recommended
Lifting Distance/mm	5.5&6-inch screen：5-6or Higher	8.9&13.3-inch screen：8-12 or Higher	
Lift Speed/mm•min^{-1}	50	50	Not recommended
Retract Speed/mm•min^{-1}		100	

1. The above parameters are for reference only. The performance of the cured material will be affected by factors such as equipment, environment, parameter settings, post-processing methods, detection methods, etc., which will cause big differences. Please contact us if necessary;2. Shake the resin well before use; please recycle the resin in time after printing; avoid prolonged soaking of the molded parts in the cleaning agent;3. It is not recommended to add other ingredients or mix them to the resin to avoid molding failure or other problems;4. The resin should be stored in a cool, dark place, and sealed with an opaque container;5. The photopolymer resin is made of chemicals, which has a certain odor and skin irritation. Pay attention to protection during transportation and use. If the resin accidentally touches your skin or eyes, please rinse with plenty of water, and the skin can be cleaned with detergent, decontamination powder, etc.; if the allergic reaction is severe or even enters the mouth or nasal cavity, please seek medical attention immediately;6. The model should be printed at a room temperature of 25-35 degrees. IF it is winter, it is recommended to turn on the air conditioner for printing.

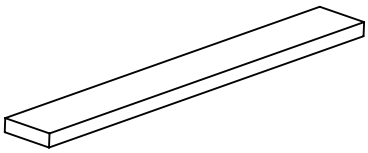
Matters needing attention

1.Shake well before printing 2. Slice setting:Stronger support: Avoild break with main body Denser support：Avoid deformation dislocation 3.Printing data Higher lifting distance: full film realse Lifting distance：≥6mm Slowing down Lifting speed: avoid breaking Lifting speed: ≤60mm/min Control leveling time: full leveling Light off delay≥6s 4.Post Curing Properly control the post curing time, the longer the exposure time, the higher the hardness of the curing material, the worse the flexibility, and the heavier the yellowing To ensure good flexibility of the material and avoid hardening problems caused by post-curing, it is recommended to clean the printed parts after printing instead of post-curing The surface sticky hand condition will be gradually improved under the indoor weak light condition. Avoid strong light exposure for later storage

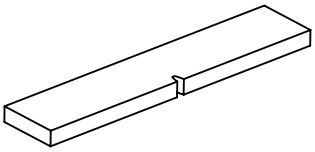
Mechanical Properties



Tensile testing specimen ASTM D638



Flexural testing specimen ASTM D790



IZOD Impact Strength ASTM D638

The physical properties, mechanical properties, and thermal properties of the resin are obtained based on the printing spline test.

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.net