

# Precision Model Resin

Technical Data Sheet

The molding precision is high, the resolution is high, the surface of the printed product is smooth, the printing details are clearly visible.

| Material Status   | Mass Production                                                                                                       |                                                                                                     |
|-------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Characteristics   | <ul style="list-style-type: none"> <li>• Low settlement</li> <li>• High hardness</li> <li>• High precision</li> </ul> | <ul style="list-style-type: none"> <li>• High resolution</li> <li>• Smooth print surface</li> </ul> |
| Applications      | <ul style="list-style-type: none"> <li>• Figure</li> <li>• Jewelry</li> </ul>                                         | <ul style="list-style-type: none"> <li>• Education</li> <li>• Garnish</li> </ul>                    |
| Appearance        | • Multiple Colors                                                                                                     |                                                                                                     |
| Form              | • Resins                                                                                                              |                                                                                                     |
| Processing method | • (surface exposure molding) LCD                                                                                      |                                                                                                     |

|                             | Testing method | Typical value |         |
|-----------------------------|----------------|---------------|---------|
| Physical Properties         |                |               |         |
| Density                     | GB/T 4472      | 1.13-1.16     | g/cm³   |
| Viscosity                   | GB/T 22235     | 170-270       | mPa•s   |
| Hardness                    | ASTM D2240     | 81-86         | Shore D |
| Mechanical Properties       |                |               |         |
| Tensile Strength            | ASTM D638      | 36-62         | MPa     |
| Elongation at Break         | ASTM D638      | 25-40         | %       |
| Flexural Strength           | ASTM D790      | 39-63         | MPa     |
| IZOD Impact Strength        | ASTM D638      | 30-40         | J/m     |
| Thermal Properties          |                |               |         |
| Heat distortion Temperature | GB/T 1634      | N/A           | °C      |

## Recommended printing parameters

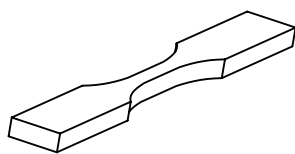
| Settings               | Machine Type                    |                                                 |                                                        |
|------------------------|---------------------------------|-------------------------------------------------|--------------------------------------------------------|
|                        | Low Light Intensity             | Medium Light Intensity                          | High Light Intensity<br>(Monochrome LCDScreen)         |
| Representative Machine | AnyCubic<br>Photon              | eSUN LCD 3.0<br>Nova Bene 4<br>Creality LD-002R | Anycubic MONO X<br>ELEGOO Saturn<br>Phrozen Sonic Mini |
| Exposure Time/s        | 9-15                            | 6-9                                             | Not recommended                                        |
| Bottom Layer Count     |                                 | 3-5                                             |                                                        |
| Bottom Exposure Time   | 50-70                           | 30-50                                           | 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    | 90-150                          | 90-120                                          | Not recommended                                        |
| Retract Speed/mm•min-1 |                                 | 150-200                                         |                                                        |

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 is recommended to turn on the air conditioner for printing.

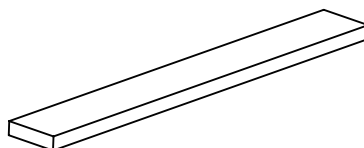
## Matters needing attention

High-precision resin could be easier to settle, shake it well before printing.

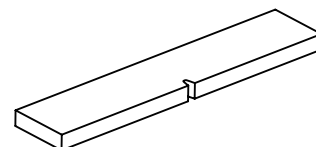
## Mechanical Properties



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

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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