

zSG Clear

A transparent resin with high-quality for printing surgical implant guides. This resin is designed to print at 100 micron and 50 micron layer thickness to produce dimensionally accurate dental implant guides and templates.

1. Suggested Printing Parameters

| For NBEE | | |
|----------------------|--------------|---------------|
| Layer Thickness /mm | 0.1 | |
| Initial Layers | 3 | |
| Transition Layers | 7 | |
| | Normal Layer | Initial Layer |
| Exposure Time /s | 1.4 | 15 |
| Cool Down Time /s | 0.5 | 0.5 |
| Motor Speed / mm/min | 1500 | 1500 |
| Rise Height /mm | 8 | 15 |
| Shrink Internal /mm | 0 | |
| Shrink External /mm | 0 | |
| Offset X | 1.007 | |
| Offset Y | 1.007 | |
| LED Power | 100% | |

2. Properties Data

| Properties | Post-Cured | Method |
|---------------------------------|---|---------------|
| Tensile Strength | 26.66 MPa | ASTM D 638-14 |
| Elongation at Break | 15.44% | ASTM D 638-14 |
| Tensile Modulus | 236.22 Mpa | ASTM D 638-14 |
| Flexural Strength | 41.09 MPa | ASTM D 790-15 |
| Flexural modulus | 1001.9 MPa | ASTM D 790-15 |
| Unnotched izod | 103.8 J/m | ASTM-D256 |
| Hardness Shore D | 77.5D | |
| Heat Deflection Temp.(1.82 Mpa) | 38.4C | ASTM D 648-16 |
| Heat Deflection Temp.(0.45 Mpa) | 54.5C | ASTM D 648-16 |
| Sterilization Compatibility | Autoclave at 127 C and 0.15MPa for 20 minutes | |
| Disinfection Compatibility | 75% Alcohol for 20 minutes | |

Tested by NBEE printer, layer thickness is 100um.

3. Storage

Stored in dark place where avoid direct sunlight or any kind of UV light, environment temperature is suggested around 5 to 30°C , and environment humidity is less than 45%RH.

4. Precautions

- 1) After the resin is poured into the resin tank, let stand still for 5 to 10 minutes before start a print job.
- 2) The good using temperature for this resin is 18-28C. Use the resin away from direct sunlight or any kind of UV light.
- 3) After the model is printed, please take it out in time and wash it with 95% concentration alcohol. Using an ultrasonic cleaner, the cleaning time depends on the size and complexity of the model, but the time should not be too long, otherwise the structural performance of the model will be reduced, what is **no more than 3** minutes is suggested.
- 4) After the model is cleaned, immediately blow it dry with an air gun and post cure the model with a UV light , the post-curing time is depended on the curing machine.
- 5) After the model is printed, please restore the remaining resin in resin bottle ASAP. It's not recommended to leave the resin in the resin tank for a long time.
- 6) Wear nitrile rubber gloves and a face mask when using this product. Keep the room ventilated. Swallowing such as eating and drinking is forbidden in the printing place.
- 7) If the user accidentally drops the resin on the skin, please wipe it away and then clean again with water. Use hand sanitizer or soap to assist in washing. If the users still feel uncomfortable, please see a doctor immediately. If the user accidentally splashes the resin in the eyes, flush with plenty of water and seek medical attention immediately. More safety details please refer MSDS of this resin.