

RF-DB-04 Resin

RF-DB-04 is a high-precision transparent implant guide and locator resin material, with good biocompatibility. After molding, the implant guide has a colorless and transparent appearance, which is easy to observe during the surgical process. Its high resolution and detail presentation power can fit well with the patient's jawbone and assist in precise positioning of drill bits and implants during implant surgery. This material features fast forming speed, high forming precision and ultra-high surface hardness.



MATERIAL STATUS

| | |
|-------------------|--|
| Applications | Dental model |
| Appearance | Clear |
| Form | Resin |
| Processing method | (surface exposure molding)LCD (surface exposure molding)DLP |
| Characteristics | High strength、Transparen High precision、Fast forming |

| PHYSICAL PROPERTIES | Testing method | Typical value |
|---------------------|----------------|-----------------------------|
| Density | ASTM D792 | 1.05-1.15 g/cm ³ |
| Viscosity | ASTM D445 | 200 mPa·s |
| Hardness | ASTM D2240 | 83-87 ShoreD |

| MECHANICAL PROPERTIES. | Testing method | Typical value |
|------------------------|----------------|---------------|
| Tensile Strength | ASTM D638 | 61.4 MPa |
| Elongation at Break | ASTM D638 | 13.2 % |
| Flexural Strength | ASTM D790 | 65.6 MPa |
| Flexural Modulus | ASTM D790 | 1700 MPa |
| HDT@ 0.45 MPa | ASTM D648 | 69 °C |

*The above parameters are for reference only. The performance of cured materials will be affected by factors such as equipment, environment, parameter settings, post-processing methods, and testing methods, which will cause great differences. Please contact us if necessary

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PRINT PARAMETERS

| Representative Machine | Exposure Time/s | Bottom Exposure Time/s | Bottom Layer Count | Lift Distance/mm | Lift Speed /mm · min ⁻¹ | Retract Speed /mm · min ⁻¹ |
|------------------------------|-----------------|------------------------|--------------------|---|------------------------------------|---------------------------------------|
| Phrozen sonic mini8K S | 3.7 | 25 | 3 | 4+4 | 60+180 | 180+60 |
| Elegoo saturn 4 Ultra | 2.2 | 25 | 3 | Default standard parameters of the device | | |
| Elegoo saturn 3 Ultra | 2.6 | 25 | 3 | 4+4 | 120+240 | 120+240 |
| Crealty HALOT-MAGE Pro | 1.2 | 15 | 3 | 8 | 180+240 | 240+180 |
| Anycubic Photon Mono 4 Ultra | 2.2 | 25 | 3 | 4+4 | 120+240 | 240+120 |
| Anycubic Photon Mono M7 Pro | 2 | 20 | 3 | 4+4 | 120+180 | 180+120 |

*Post-Processing Procedure and Note

- 1.The model can be cleaned using isopropyl alcohol in the ultrasonic cleaning machine, and try not to use high-frequency shock or force brushing the model to avoid damage to the surface details of the model.
- 2.Thoroughly blow the model dry with a hair dryer or the like;
3. It is recommended to remove the support for model with supports first, and then post-cure treatment. If you remove the supports after it's been post-cured , it will easily cause damage to the contact surface of the support point;
4. For some occasions where certain toughness is required, you can choose to cure with UV lamp for 5 minutes. The printed parts should be kept in a cool dry place.

*Safety Precautions

- 1.Eye Contact: Immediately flush with plenty of clean water (under eye lids) for at least 20 minutes. Hold eyelids apart to ensure flushing. Washing within one minute of contact is essential to achieve maximum effectiveness. Seek medical attention immediately.
- 2.Skin Contact:Remove contaminated clothing and rinse contact area thoroughly with soap and water.
- 3.3D resin is not approved for use with food, drink, or medical application on the human body
- 4.For additional information please see the Material Safety Data Sheet.

*Safety Precautions

Please store in a cool place below 25 degrees Celsius, away from direct sunlight. Ordinary visible light may cause the resin to polymerize and gel.