

Dental Clear Retainer Resin 3D Printing Material

RF-HS-12



- Biocompatible
- Easy to Clean
- Transparent
- Support OEM/ODM servies



RF-HS-12 Hard Splint Resin is a biocompatible material used for producing bite plates, occlusal splints, and retainers. It can make products with high accuracy and dimensional stability. It also has high abrasion resistance, high flexural strength, and high impact strength. These material features make the printed products easy to clean.

Applications:	Dental model	Color:	Semi-clear	Material:	Resin
Applicable printer type:	DLP and LCD 3D printer		Characteristics:	High precision、High toughness、High wear resistance	

Physical properties	Testing method	Typical value
Density	ASTM D792	1.05-1.10 g/cm3
Viscosity	ASTM D445	600-700 mPa ·s
Hardness	ASTM D2240	85-90 ShoreD

Mechanical properties		
Tensile Strength	ASTM D638	80-90 MPa
Elongation at Break	ASTM D638	8-10 %
Flexural Strength	ASTM D790	85-95 MPa
Flexural Modulus	ASTM D790	2200-2500 MPa

Note: 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 differences. Please contact us for professional advice.



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 mini 8K S	10	40	3	4+3	60+120	180+60
Elegoo saturn 4 Ultra	6	30	3	Default standard parameters of the device		
Elegoo saturn 3 Ultra	7.5	40	3	4+4	60+180	180+90
Creality HALOT-MAGE Pro	3.5	20	3	8+2	60+180	240+120
Anycubic Photon Mono 4 Ultra	7.5	40	3	4+4	90+120	240+90
Anycubic Photon Mono M7 Pro	5.5	30	3	4+4	60+120	180+60

Note: The list's brands are solely owned by the respective brand owners. Here is only description provided

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°C(77°F), away from direct sunlight. Ordinary visible light may cause the resin to polymerize and gel.



3D Printing Product **Manufacturer**
Equipment Automation **Supplier**
Your 3D Printing technology **Partner**

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