RI RESIONE D01S

RESIONE D01S Dental 3D Printer Resin User Manual

Model: D01S | Brand: RI RESIONE

1. Product Overview

The RESIONE D01S Dental 3D Printer Resin is a specialized photopolymer resin formulated for high-precision dental applications. It is ideal for printing restoration, implant, and study models, offering very low shrinkage, high dimensional accuracy, and a hard, wear-resistant surface. The resin produces models with a matte surface and plaster-like texture, facilitating easy observation of dental model edge lines and accurate scanning. It is compatible with mainstream LCD, MSLA, and DLP 3D printers.

Image: RESIONE D01S Dental 3D Printer Resin bottle alongside a printed dental model, showcasing the product packaging and a typical application.

2. Safety Information and Precautions

Handling 3D printer resin requires adherence to specific safety guidelines to ensure user well-being and proper product performance. Please read and understand all precautions before use.

2.1 General Precautions

- **Operating Temperature:** Ensure the operating environment is maintained between 25~35℃ (68~95℉).
- **Shake Well:** Shake the resin bottle thoroughly before each use. If the resin is highly viscous, preheat the bottle with 60-80℃ warm water before shaking to improve flow.
- **Personal Protective Equipment:** Always wear nitrile rubber gloves during operation.
- **Ventilation:** Work in a well-ventilated area to minimize exposure to fumes.
- **UV Exposure:** Do not use resin near windows, balconies, or other areas with strong ultraviolet light exposure.
- **Accidental Contact:** In case of accidental contact with eyes, mouth, or nose, rinse immediately with plenty of

water and seek medical attention.

- **Skin Contact:** Resin remaining on the skin can be washed off with soap, hand sanitizer, or similar cleaning agents.

2.2 Waste Disposal

- **Unused Resin:** If resin is no longer needed, pour it into a transparent container (small amounts at a time) and place it in direct sunlight to completely cure and solidify before disposal.
- **Resin-Contaminated Cleaning Fluid:** Do not discharge cleaning fluid containing resin directly into the sewer. Place the cleaning solution in sunlight until the resin solidifies and precipitates. Filter out the solid residue. The filtered cleaning solution can be reused.

2.3 Storage

- Store the resin in a sealed, shaded, and cool place.
- Keep away from fire sources.
- Keep out of reach of children.
- If the resin will not be used within 24 hours, pour it into a clean, light-shielded container and seal it tightly. Do not mix printed resin liquid with unused resin to prevent contamination.

3. Setup and Preparation

Proper preparation is crucial for successful 3D printing with RESIONE D01S resin.

1. **Environment Check:** Ensure your printing area meets the recommended temperature (25-35℃) and is well-ventilated.
2. **Printer Calibration:** Verify your 3D printer is properly calibrated according to its manufacturer's instructions. This includes bed leveling and Z-axis calibration.
3. **Resin Preparation:** Shake the D01S resin bottle vigorously for at least 1 minute before pouring. If the resin is cold or thick, gently warm the sealed bottle in a warm water bath (60-80℃) for a few minutes to reduce viscosity, then shake again.
4. **Pouring Resin:** Carefully pour the desired amount of resin into the printer's resin vat. Avoid overfilling.
5. **Gloves On:** Always wear nitrile gloves when handling the resin and cleaning the vat or printed models.

Image: Promotional banner for D01S resin, emphasizing its key features: very low shrinkage, high dimensional accuracy, and a wear-resistant surface, crucial for dental applications.

4. Operating Instructions

The RESIONE D01S resin is designed for optimal performance with LCD, MSLA, and DLP 3D printers. Specific print settings may vary depending on your printer model and desired print quality.

4.1 Recommended Print Settings (General Guidelines)

While exact settings depend on your specific printer and model, these are general starting points:

- **Layer Height:** 0.05mm for detailed dental models.
- **Bottom Exposure Time:** 20-40 seconds (adjust based on printer power and model size).
- **Normal Exposure Time:** 2.0-4.0 seconds (for mono LCD/DLP printers), 6.0-10.0 seconds (for RGB LCD printers).
- **Lifting Distance:** 6-10mm.
- **Lifting Speed:** 40-60 mm/min.
- **Retract Speed:** 150-200 mm/min.
- **Supports:** Use medium to heavy supports for dental models to ensure stability and prevent deformation.

4.2 Post-Processing

1. **Cleaning:** After printing, carefully remove the model from the build plate. Wash the printed model thoroughly with 95% (or higher) isopropyl alcohol (IPA) or ethanol for 2-5 minutes. Use an ultrasonic cleaner for best results. Ensure all uncured resin is removed from the surface and crevices.
2. **Drying:** Allow the cleaned model to air dry completely or use compressed air to remove any residual alcohol. Ensure no white residue remains.
3. **Post-Curing:** Place the dry model in a UV curing chamber. Cure for 2-5 minutes, rotating the model to ensure even exposure. Proper post-curing is essential for achieving the resin's full mechanical properties, including

hardness and wear resistance.

4. **Support Removal:** Once fully cured, carefully remove any remaining supports.

Image: A batch of 3D printed dental arches still attached to a build plate, demonstrating the resin's capability for producing multiple detailed models simultaneously.

5. Maintenance

Proper maintenance of your resin and equipment ensures consistent print quality and extends product lifespan.

- **Resin Storage:** Always store the D01S resin in its original opaque bottle, tightly sealed, in a cool, dark place away from direct sunlight and heat sources.
- **Vat Cleaning:** After printing, if you do not plan to print again soon, filter any unused resin from the vat back into the bottle using a fine mesh filter to remove cured particles. Clean the resin vat thoroughly with IPA and wipe dry.
- **Build Plate Cleaning:** Clean the build plate with IPA after each print to remove any resin residue.
- **Printer Maintenance:** Follow your 3D printer manufacturer's guidelines for regular maintenance, including cleaning the FEP film and LCD screen.

6. Troubleshooting

Common issues encountered during resin 3D printing and their potential solutions when using RESIONE D01S resin.

Problem	Possible Cause	Solution
Prints not sticking to build plate	Insufficient bottom exposure time, dirty build plate, improper leveling, low room temperature.	Increase bottom exposure time, clean and re-level build plate, ensure room temperature is within recommended range (25-35°C).
Partial prints or missing layers	Insufficient normal exposure time, resin not mixed well, FEP film damage, screen issues.	Increase normal exposure time, shake resin thoroughly, inspect and replace FEP film if damaged, check printer screen.
Models are brittle or soft after curing	Insufficient post-curing, incomplete cleaning.	Increase post-curing time and ensure even UV exposure, ensure models are thoroughly cleaned of uncured resin before curing.
Excessive shrinkage/deformation	Incorrect print settings, model design issues.	While D01S has very low shrinkage, ensure print settings are optimized. Review model orientation and support placement in slicing software.
Resin too thick to pour/mix	Low ambient temperature.	Gently warm the sealed resin bottle in a warm water bath (60-80°C) before use. Ensure operating temperature is maintained.

7. Product Specifications

Attribute	Detail
Product Name	RESIONE D01S Dental 3D Printer Resin
Model	D01S
Brand	RI RESIONE
Application	Dental restoration, implant, and study models
Key Features	Very Low Shrinkage, High Dimensional Accuracy, Hard and Wear-resistant Surface, Matte Surface and Plaster Texture
Compatibility	All mainstream LCD/MSLA/DLP 3D printers (RGB or Mono screen)
Package Dimensions	9.96 x 4.02 x 3.98 inches
Item Weight	2.69 Pounds (approx. 1KG)
ASIN	B09WRCVRVZ

Attribute	Detail
Date First Available	March 22, 2022

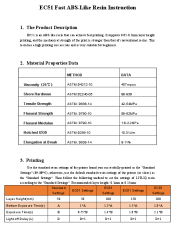
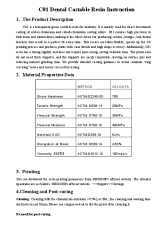
8. Warranty and Support

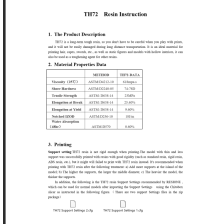
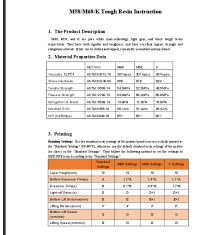
RESIONE is committed to providing high-quality products and customer satisfaction. For any questions regarding the D01S Dental 3D Printer Resin, including usage, troubleshooting, or product information, please contact RESIONE customer support.

While specific warranty details are not provided in this manual, standard consumer rights and return policies apply. Please refer to your point of purchase for detailed return and refund policies.

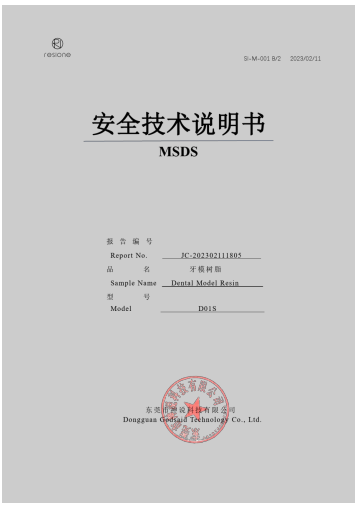
For further assistance, you may visit the official RI RESIONE store on Amazon:RI RESIONE Store

Related Documents - D01S

	RESIONE D01 & D01S Dental Model Resin: Instructions and Properties Guide to RESIONE D01 and D01S dental model resins, detailing product features, material properties, printing, cleaning, and post-curing for high-precision dental applications.
	EC51 Fast ABS-Like Resin: Properties, Settings, and Usage Guide Comprehensive guide to LITLIQ EC51 Fast ABS-Like Resin, detailing material properties, optimal printing settings for various layer heights, and essential cleaning and post-curing procedures for high-quality 3D prints.
	RESIONE C01 Dental Castable Resin Instruction Manual Comprehensive guide to RESIONE C01 Dental Castable Resin, detailing its properties, 3D printing, cleaning, and investment casting procedures for dental prosthetics like crowns and bridges. Includes material specifications, step-by-step casting instructions, and burnout process. Ideal for dental laboratories.

	[RESIONE TH72 Resin: Instructions for Use and Properties] Comprehensive guide to RESIONE TH72 3D printer resin, detailing its properties, printing support settings, cleaning, and post-curing procedures for optimal results.
	[RESIONE C01 Dental Castable Resin: Instructions and Casting Guide] Comprehensive guide to RESIONE's C01 Dental Castable Resin, covering product description, material properties, printing, cleaning, post-curing, and detailed casting procedures for dental applications.
	[RESIONE M58/M68/K Tough Resin Instruction Manual] Comprehensive instruction manual for RESIONE M58, M68, and K tough 3D printing resins, detailing product descriptions, material properties, printing settings, cleaning and post-curing procedures, applications, and storage guidelines.

Documents - RI RESIONE – D01S



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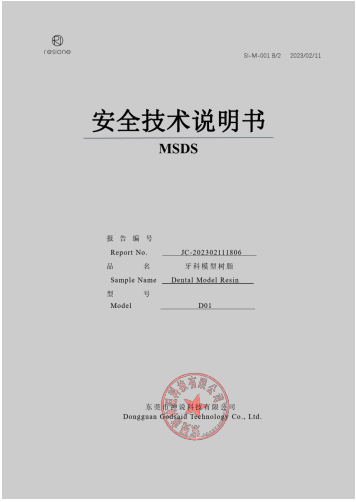

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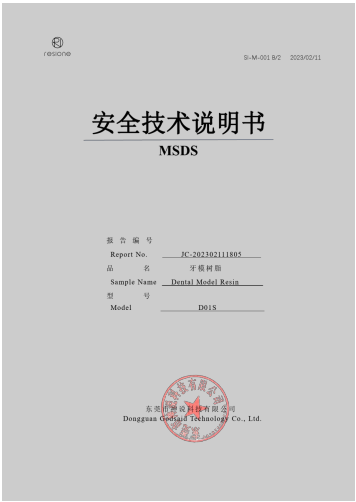

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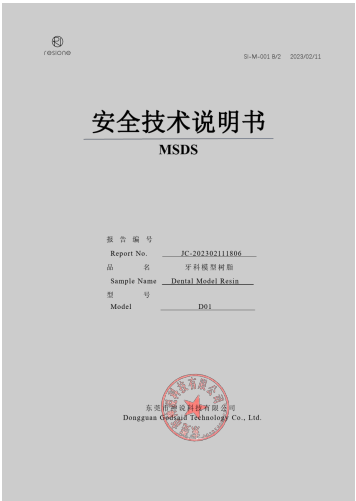

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