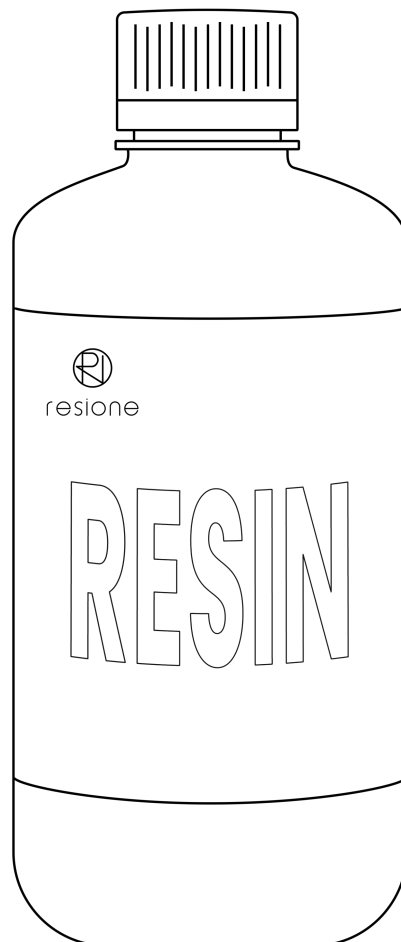




resione

M70 High Precision Resin Instruction



RESIONE makes 3D printing more practical

1. The Product Description

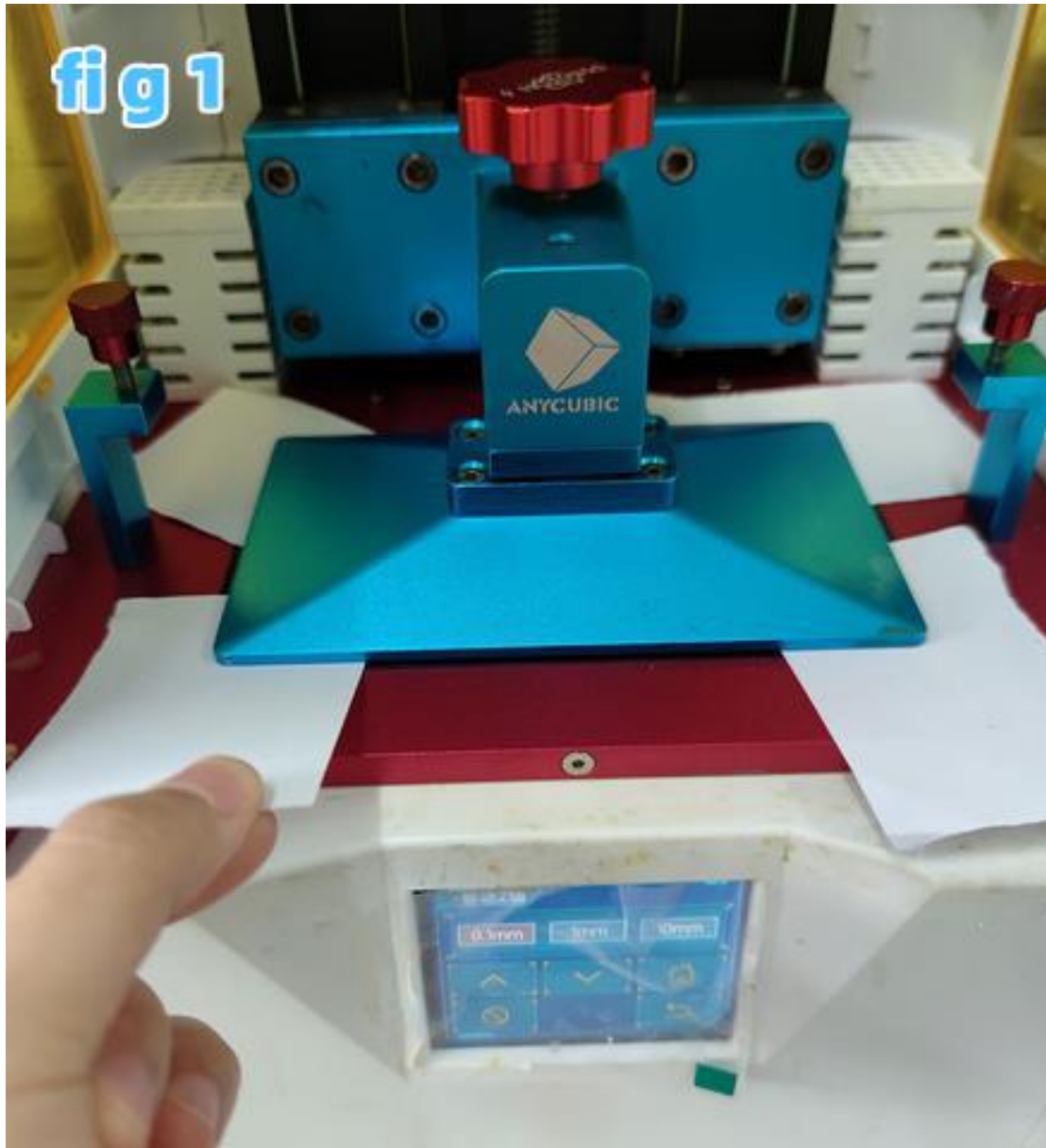
M70 resin is a high-precision rigid resin that comes salmon color. It contains unique inorganic fillers allowing for low shrinkage, wear resistance, matte and delicate surface, so it has become a favourite with action figures, BJD and garage kit (GK) printers. The ability to create parts at very high resolutions makes these materials ideal for applications like miniatures, precision parts and high detailed mold.

2. Material Properties Data

	METHOD	DATA
Viscosity(25°C)	ASTM:D4212-10	890mpa.s
Shore Hardness	ASTM:D2240-05	89D
Heat Distortion Temperature	ASTM:D648	68°C
Tensile Strength	ASTM: D638-14	32MPa
Flexural Strength	ASTM: D790-10	51MPa
Notched IZOD	ASTM:D256-10	6.5J/m
Elongation at Break	ASTM: D638-14	9%

3. Printing

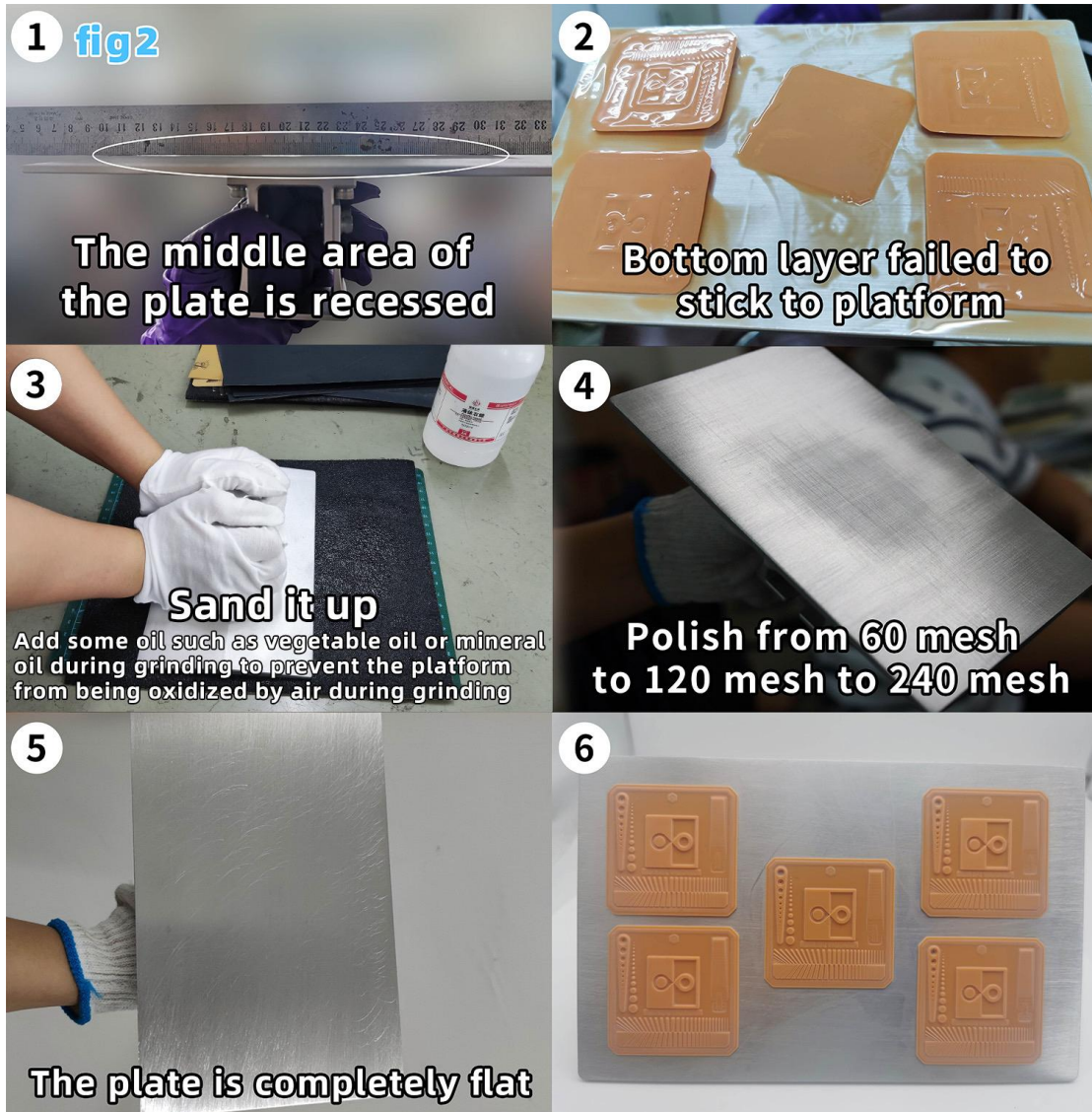
Before printing with the M70 resin, the first consideration is to ensure that the leveling of the printer platform is in good condition. Since the M70 is a high-precision resin with a low transmission depth, the bottom print does not easily adhere to the platform. To ensure printing quality, the platform needs to be leveled from each LCD screen just the thickness of a sheet of A4 paper. (Fig1)



Listed below are some cases where prints are dropped due to issues with the build plate, and solutions:

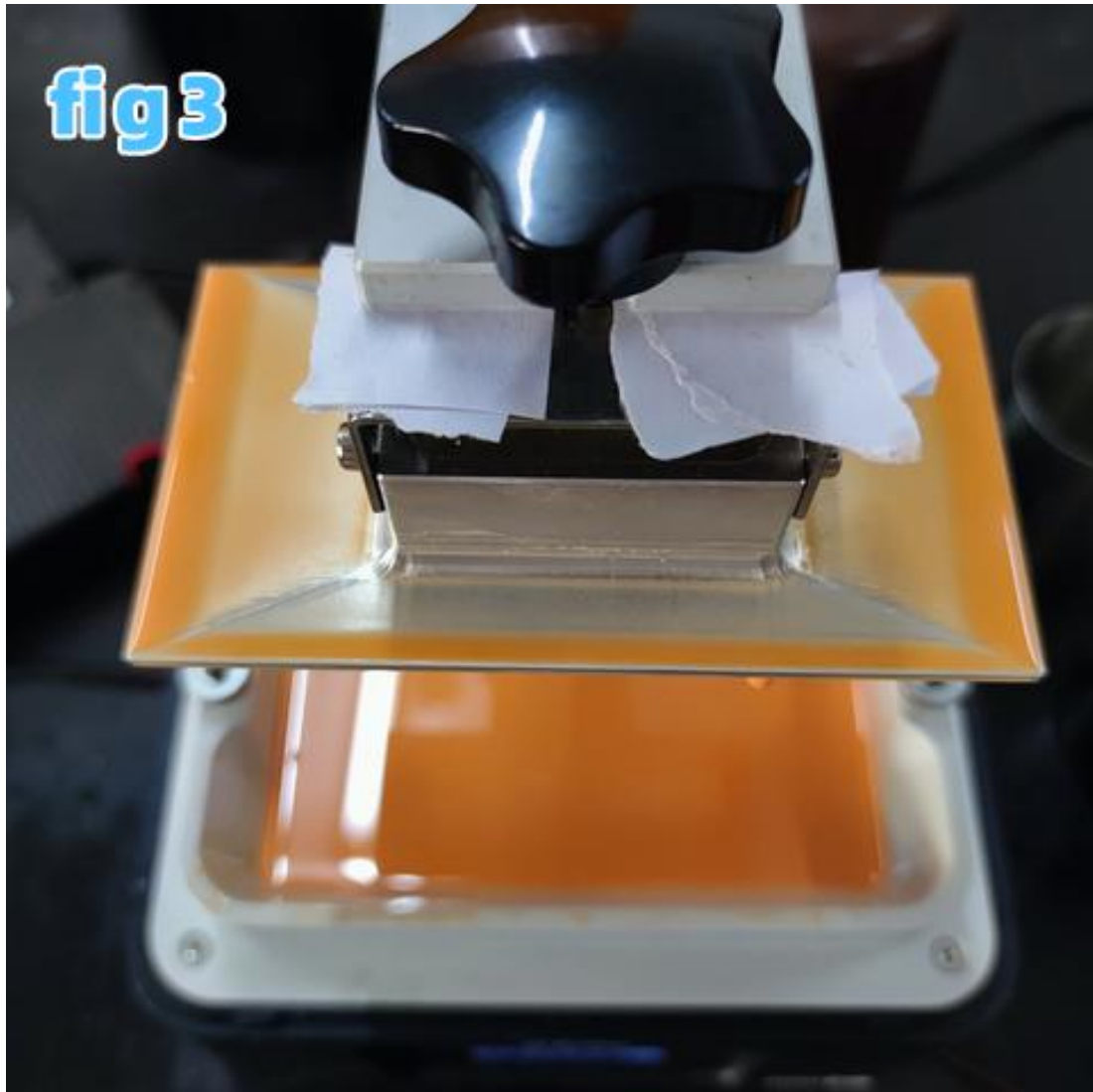
a. There is a depression in the middle of the build plate, which needs to be polished according to the method shown in the figure below.

(This situation generally occurs on printers with a print size of not less than 8.9 inches, many of their build surfaces are uneven)



b. Use a magnetic build plate. The magnetic plate is too smooth to stick to the prints and needs to be removed or use 800 grit sandpaper to roughen the magnetic platform before use

c. Due to inertial positioning after the knobs or screws of the build plate are locked, as shown in Fig3. Correction with spacers when mounting the build plate



After eliminating the above problems, you can start setting parameters and slicing. We recommend using the "Rest time after bottom retract" Setting, set 8-10S. It is more conducive to the bottom layer sticking to the build platform.

Supports Settings

Sets the medium supports. Note that M70 resin is difficult to stick to the build plate, you can set a thick bottom raft or increase the number of bottom layers to ensure that the bottom layer of the prints can stick to the plate.

Printing Settings

You can download the resin printing parameters from RESIONE's official website. The detailed operations are as follows: RESIONE's official website →Support→Settings

4. Cleaning and Post-curing

Cleaning

It is recommended to use alcohol or IPA above 95% for cleaning the print for no more than 10min; some printers may cause an incomplete cured resin layer on the surface, making it difficult to clean and leave white material on the surface. In this case, it is recommended to scrub with a toothbrush. After cleaning, blow the print with an air pressure gun to ensure its surface drying.

Post-curing

After cleaning and drying, the print can not be cured immediately, which will make the surface of the print white. It is recommended to place it for half an hour after drying with compressed air and wait for the solvent on the surface of the model to evaporate before post-curing. Taking a 40W power post-curing box as an example, it is recommended that the curing time be 10min on both sides. According to the power of the post-curing box, the post-curing time may need to be adjusted appropriately. It is recommended that the post-curing box with higher power be preferred for post-curing operation. In order to prevent warping of the printed part, it is recommended to post-cure both sides of the printed part.



Attentions

- a. If the post-curing irradiation time is too long, it will lead to the warping of the prints, and it hardens it and Fragile.
- b. The resin prints will be fragile after post-curing. It is not recommended to apply force to the prints immediately. Just need to wait for a while until the internal stress of the prints is completely released.

For more questions, please contact support@godsaid3d.com

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