

M70 High Precision Resin Instruction

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.

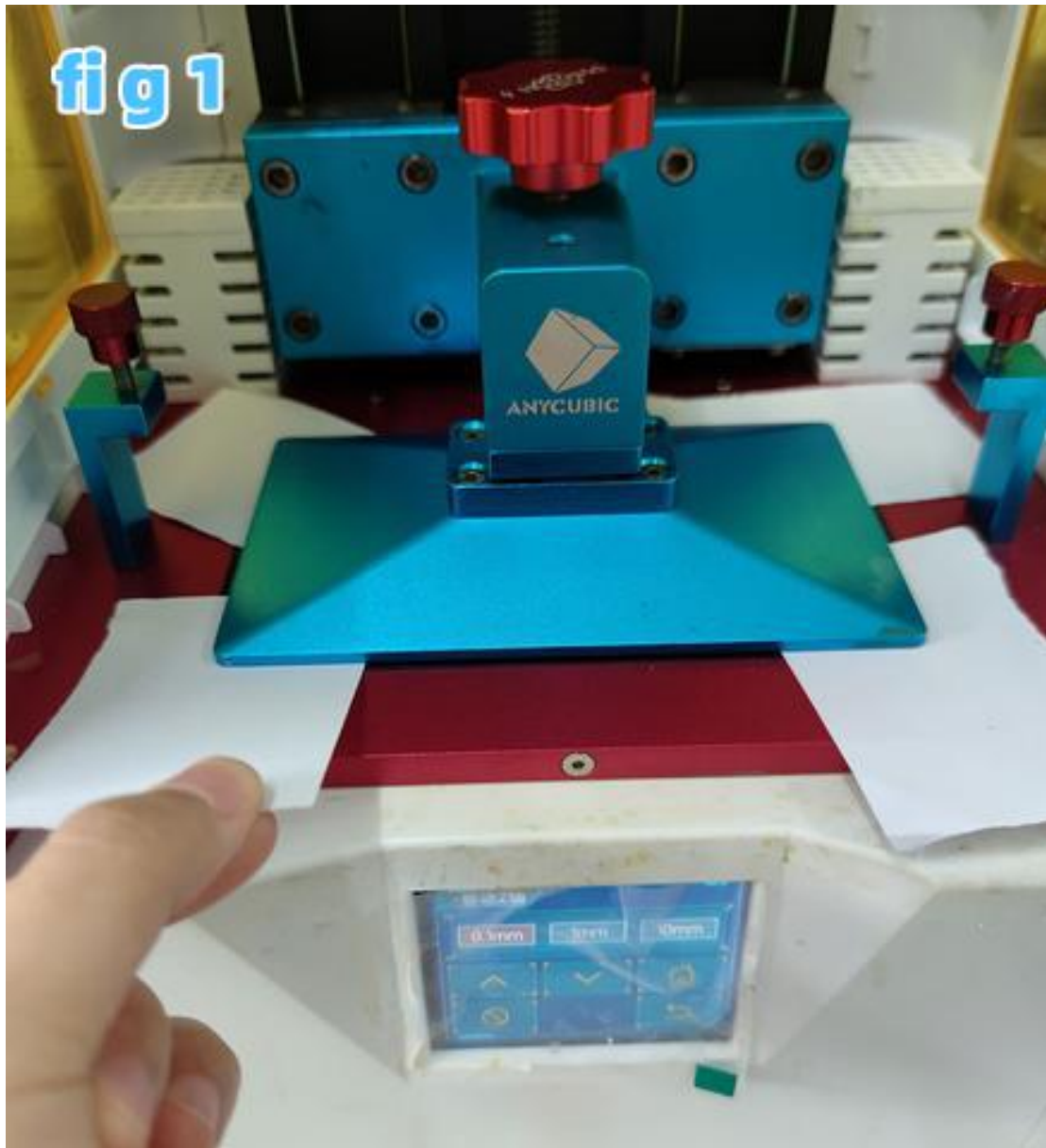
2. Material Properties Data

	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

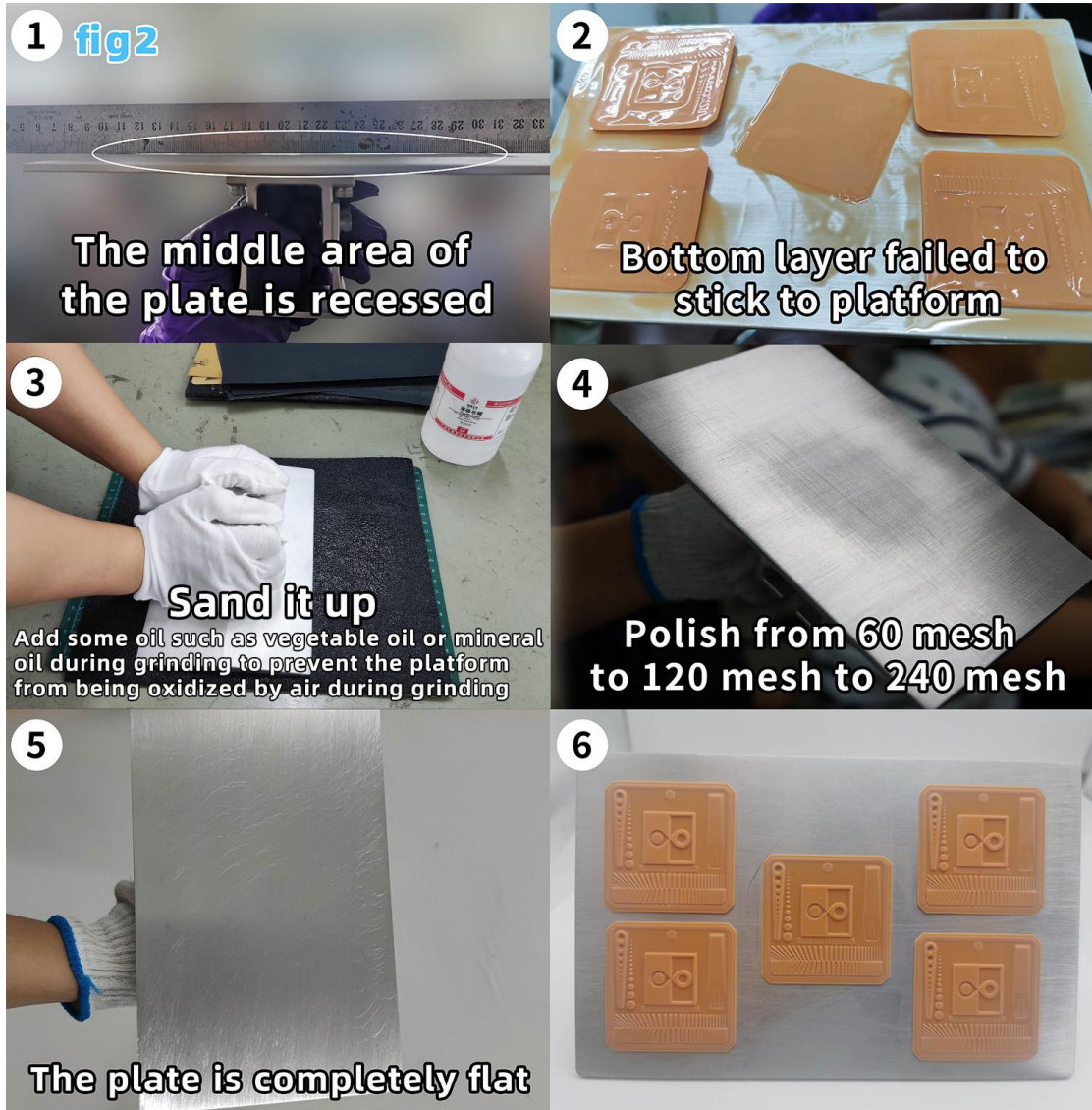
Before printing: make sure that the build plate is fully leveled. Because M70 is a high-precision resin, the transmission depth is lower than other resins, so it is easy to have the prints not stick to the build plate. The build plate needs to be leveled so that each position is exactly one piece of A4 paper away from the LCD screen.

(Please use 4 sheets of A4 paper for leveling in strict accordance with the method in the picture below)

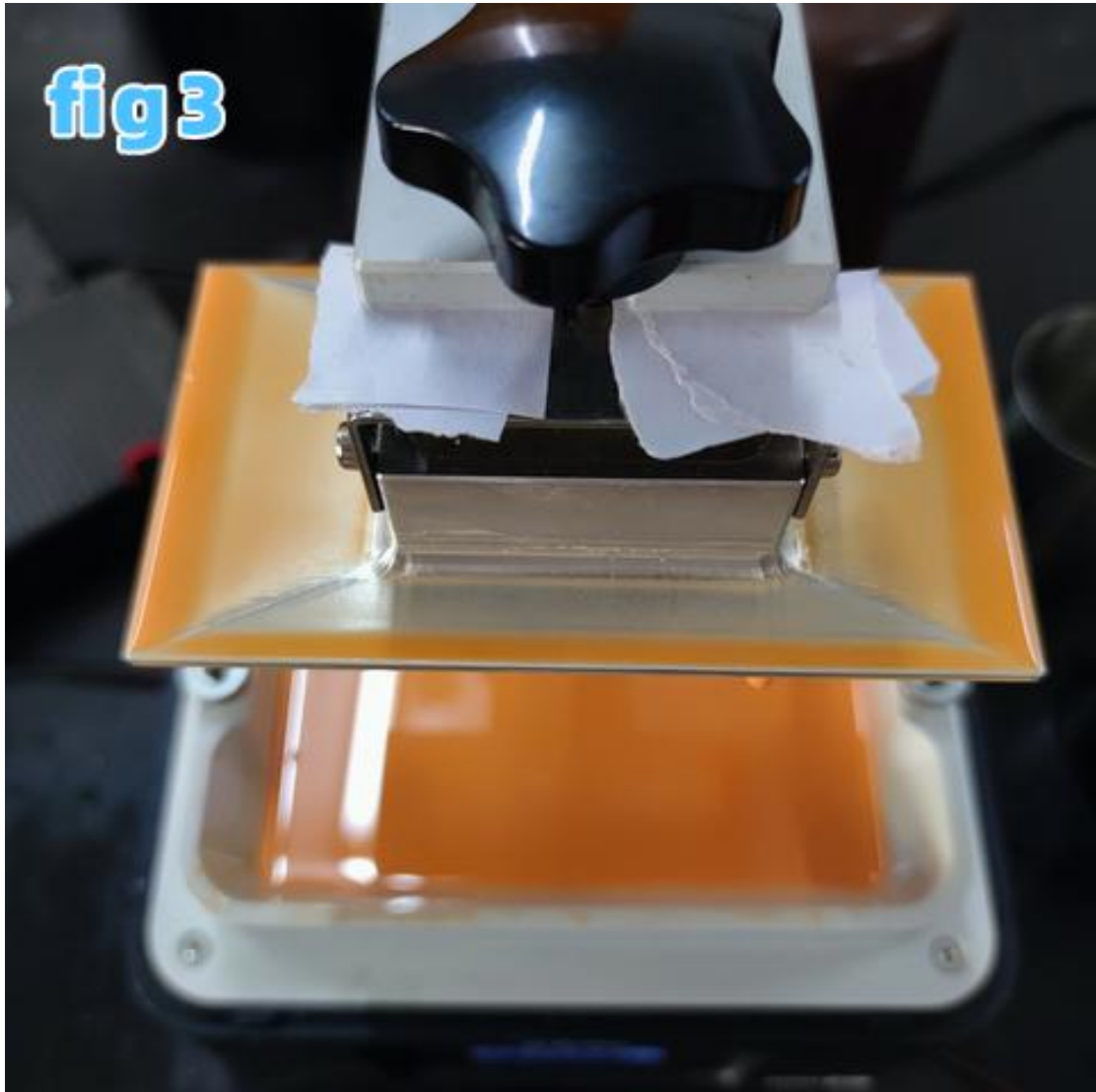


Listed below are some cases where prints are dropped due to issues with the build plate, and solutions:

- 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: You can use ethanol (concentration $\geq 95\%$), or IPA to clean, the cleaning and soaking time shall not exceed 10min. It is recommended to use a toothbrush to scrub the prints. After

cleaning, blow dry the print with compressed air.

(Why does M70 resin need to be cleaned with a toothbrush? Because some printers have an anti-aliasing effect, it is easy to produce a layer of incompletely cured resin on the surface of the print, which makes it difficult to clean and easily cause the surface of the M70 print to become white.)

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 .If you use a post-curing box with a power of 40W, our recommended post-curing time is about 10mins (Adjust the post-curing time according to the power of the post-curing box, the greater the power, the shorter the time).



Attentions:

- a. Too long post-curing time will make the resin prints easy to warping, hard and brittle.
- 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