

# G217 Clear Tough Resin Instruction

## 1. The Product Description

G217 resin is a tough, non-yellowing, highly transparent resin with a slightly bluish color. The print is semi transparent like Frosted glass. Once is sanded to remove the layer lines, it looks completely clear, allowing for producing highly transparent parts. Additionally, the excellent toughness and stiffness of the printed parts it produces are impressive, allowing holes to be drilled, screws to inserted, and other high stress modifications, making it ideal for producing functional parts that will experience long term static load, transient stress or strain, but it is not suitable for underwater applications. G217 is also one of the few transparent resins with excellent performance in detail and accuracy.

## 2. Material Properties Data

	<b>METHOD</b>	<b>DATA</b>
<b>Viscosity (25°C)</b>	ASTM:D4212-10	920mpa.s
<b>Shore Hardness</b>	ASTM:D2240-05	90D
<b>Tensile Strength</b>	ASTM: D638-14	65.3MPa
<b>Flexural Strength</b>	ASTM: D790-10	77.3MPa
<b>Elongation at Break</b>	ASTM: D638-14	10.40%
<b>Notched IZOD</b>	ASMT:D256-10	30.78J/m
<b>Viscosity (25°C)</b>	ASTM:D648-18	68°C

## 3. Printing

**Before printing:** There is no need to shake when adding resin liquid to avoid creating a lot of air bubbles. After the resin is poured into the resin tank, wait for the bubbles to disappear (you can also use hot air to accelerate the bubbles to dissipate) before printing

**Supports settings:** Use medium supports, and the supports density should not be too dense under the premise of ensuring successful printing, so as to prevent the resin liquid from accumulating on the dense supports and cured by UV light

**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:** Cleaning with the ethanol(concentration  $\geq 95\%$ ), or IPA. Cleaning and soaking time:  $\leq 10$ mins. Please use compressed air to dry the prints after cleaning it.

**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).

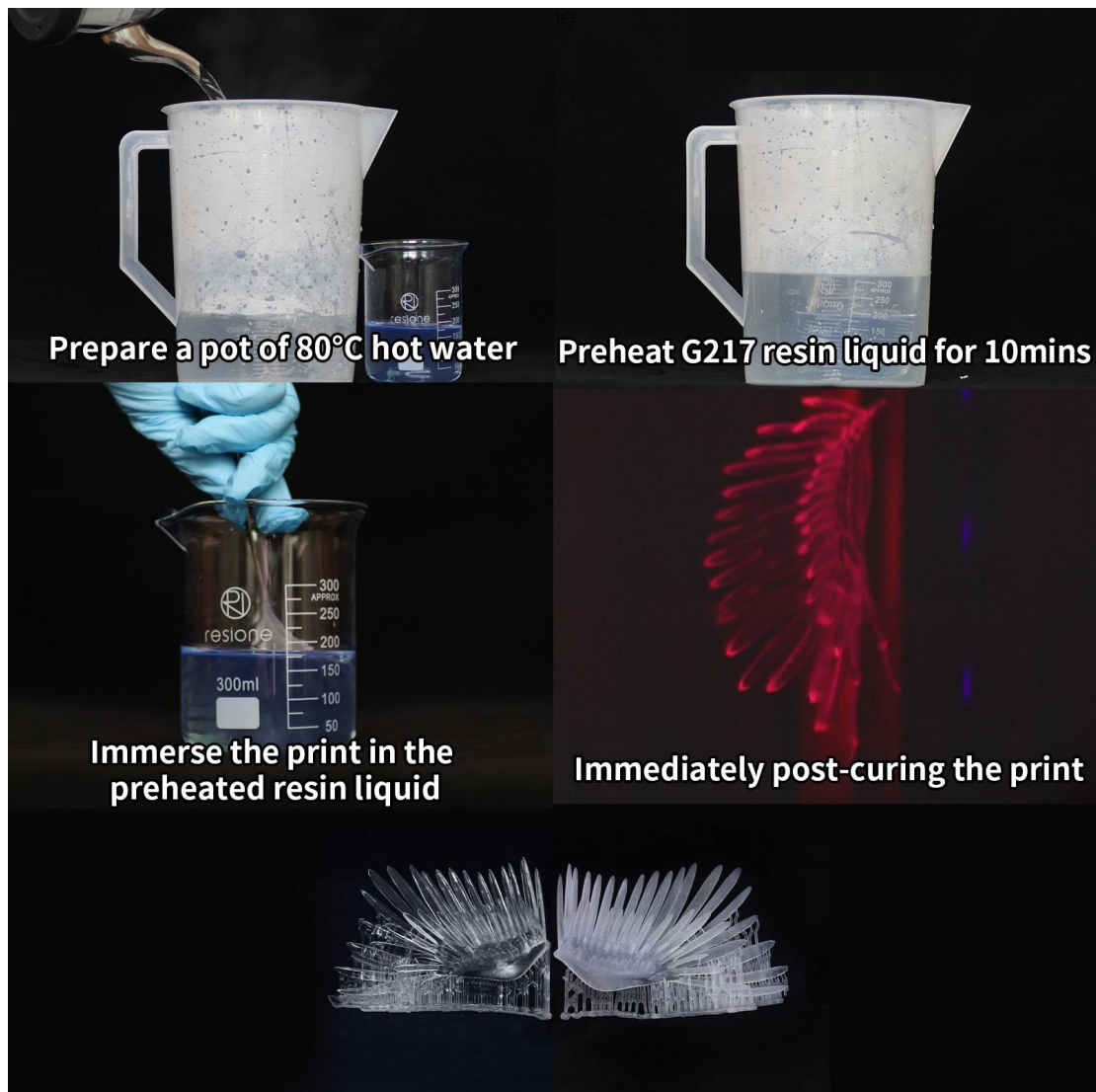


### Attentions:

- Too long post-curing time will make the resin prints easy to warping, hard and brittle.
- 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.
- If the post-curing time is too long, the resin prints will turn yellow and irreversible. The slight yellowing caused by normal post-curing can automatically fade away after a period of time. Putting the prints in continuous boiling water can make it quickly fade away.

## 5. Prints Polishing

- For prints with large surfaces, sandpaper can be used for polishing. Sand with low to high grit sandpaper, and finally spray with varnish. This process is time-consuming, but the polishing effect and accuracy can be guaranteed
- For prints with more details or hollow structures, dip coating or spraying can be used to evenly coat the surface of the prints with a layer of clear resin to cover the surface layers and pixel patterns of the prints to make the prints transparent (operation as shown below)



## 6. Storage of Prints

- Resin prints, like traditional plastics, become hard and brittle when the ambient temperature is low. The prints can maintain normal mechanical properties at 25-35°C.
- If you need to keep the resin prints with good toughness for a long time, it is recommended to store them in an airtight bag or apply a layer of waterproof paint.
- The prints should not be placed in a humid environment for a long time, otherwise they will absorb water and soften. Use an airtight bag or waterproof paint to protect your prints effectively.

For more questions, please contact [support@godsaid3d.com](mailto:support@godsaid3d.com)