

# **Hight Wax Resin**

### Specifically designed for jewelry casting

300H Hight Wax Casting Resin Suitable For High Quality Jewelry Casting

### 3D printing jewelry casting resin

Colours: green

Wavelength: 405nm

- High wax content 80%
- Low shrinkage, dimensionally stable
- Smooth surface, clear sharp corners
- Casting with low thermal expansion
- Simple post-processing
- Suitable for casting gold, silver, diamonds









content	Data value testing metho	
color	green	
viscosity	290~310cps(25°C)	ASTM D1084-1997
density	1.1~1.2g/cm³	ASM D1875-69(1980)
shrinkage	< 0.3%	Capillary method
hardness	30D~40D	ASTM D2240-05(2010)



#### **Gypsum powder recommendation**

(choose high strength gypsum powder can achieve better casting effect.)



<Pre><Pre>tige OPTIMA™>

#### **Recommend:**

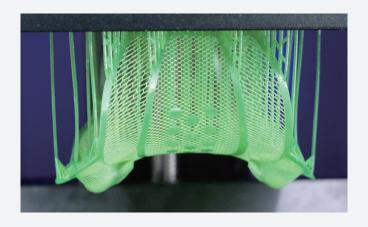
1.Prestige OPTIMA : https://www.certus-int.com/optima

2.Gilcast HS SOFT: https://www.srldental.com

3.GRS: https://www.goodwin.co.uk/ 4.TT resin powder (TECAST RESINCAST)





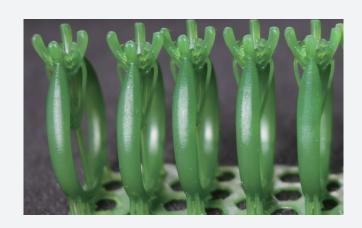


# Use high wax content casting resin to make complex design easier

This resin can achieve intricate designs, including fine filigree and precise settings, making it ideal for making jewelry models for the Middle Eastern market.

# Low shrinkage and stable size after printing

The shrinkage rate is less than 0.15%, and the size remains stable after printing, which is very suitable for mass production.



# Low thermal expansion and easy casting High wax content

The high wax content of 80% makes it easier to pour. 300H printed parts will evaporate at suitable fire temperatures and will not react with plaster, while providing extremely low thermal expansion.

# Perfect horizontal aperture for diamond setting

Works with the GIANT 8k machine to perfectly render the horizontal aperture, which is especially important for diamond setting.



### **Printing parameter settings**

| machine        | layer height | exposure time | bottom exposure time |
|----------------|--------------|---------------|----------------------|
| Giant 8k       | 0.03mm       | 5.5s          | 45s                  |
| Mini giant pro | 0.025mm      | 6s            | 50s                  |

| bottom layer count | transition layer vount | rest time after retract |
|--------------------|------------------------|-------------------------|
| 6                  | 4                      | 1.5s                    |
| 10                 | 5                      | 1s                      |

### **How To Cast**

—. Post-processing process

(Strictly follow each process to operate, do not skip or omit!)

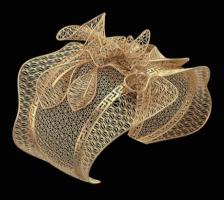
| 95% ALCOHOL<br>(FIRST) | 95% ALCOHOL<br>(THE SECOND TIME)<br>CLEAR | ULTRASONIC<br>CLEANING | DETERGENT<br>CLEANING | DRYING | UV CURING<br>(800W) |
|------------------------|---|------------------------|-----------------------|--------|---------------------|
| 5min                   | 5min                                      | 5min                   | 5min                  | /      | 30min               |

- 1. First wash in alcohol (95% concentration) for 5 minutes, and rinse the residual resin on the surface
- 2. Wash again in alcohol (95% concentration) for 5 minutes
- 3. Put it into the ultrasonic machine for cleaning for 5 minutes
- 4. Use a soft brush to wash with dish soap for 5 minutes
- 5. Dry surface moisture
- 6. Curing in a high power UV curing box for 30 minutes

### **Remark:**

- 1. Select the corresponding post-processing process according to the jewelry type.
- 2. It will turn white after curing, if it is still yellow, it means that the curing is not complete.
- 3. \*The surface must be thoroughly clean and dry before entering the casting process, which is critical and will affect the casting effect.
- 4. \*Please use resin powder for casting (important), it is recommended to use:Prestige OPTIMA or Gilcast HS SOFT





### 二.Casting aspects

### INSTRUCTIONS FOR MIXING

| Powder: Water Ratio (38% - 40%) | Powder (Kg.) | Water (cc.) | Powder (Lb.) | Water (cc.) |
|---------------------------------|--------------|-------------|--------------|-------------|
| Automatic Vac. Mixing           | 1            | 380         | 1            | 172         |
| Conventional Mixing             | 1            | 400         | 1            | 181.6       |
| Water Temperature °C            | 21-24        | 21-24       | 21-24        | 21-24       |

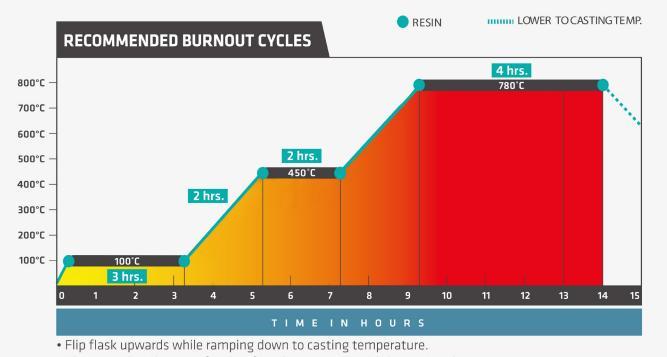
• Increasing the powder amount 1% will decrease the total working time for approximately 30 seconds.

| Automatic Vac. Mixing Mach.     | Minutes |
|---------------------------------|---------|
| Accurately Weigh Powder / Water |         |
| Add Powder to Water             |         |
| Mixing & Vacuuming              | 5       |
| Pour into Flask                 | 2       |
| Vacuum Invested Flask           | 1       |
| Total Working Time              | 8       |

Allow to sit undistributed for 90-120 minutes before burnout

| Conventional Mixing Mach.     | Minutes |
|-------------------------------|---------|
| Accurately Weigh Powder Water |         |
| Add Powder to Water & Mix     | 4       |
| Vacuum the Bowl               | 1       |
| Pour into Flask               | 1       |
| Vacuum Invested Flask         | 2       |
| Total Working Time            | 8       |

 Allow to sit undistributed for 90-120 minutes before burnout



• Please contact the manufacturer for other recommended burnout cycles

#### **Remarks:**

It is recommended to use centrifugal casting machine when casting, which can make the molten metal flow to every place of the model, so that the success rate of casting is greatly improved.

The temperature of molten liquid during casting is controlled in the range of 1000°C,If the temperature of molten metal is too high, the inner wall of plaster mold will be broken and the casting effect will be affected.



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