



## RESINIFY — INSTRUCTIONS FOR USE (IFU)

**Product Name:** JewelCast — High-Strength, High-Detail Castable Resin **Intended Use:** For Jewelry Investment Casting

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### 1. Product Overview

JewelCast is a premium, high-resolution castable resin engineered for **exceptional strength, dimensional stability, and detail preservation**. Adapted from the performance of EPIC castable resin, JewelCast is specifically designed for stone-setting jewelry, thick signet rings, and models that require both strength and clean burnout. Compared to WaxCast or CleanCast, JewelCast provides **higher mechanical strength, better handling for heavy or large rings, excellent prong stability, and smooth surfaces ready for investment**. This resin is ideal when clients need patterns that resist breakage but still burn out completely with minimal residue.

### 2. Intended Use

JewelCast is designed for:

- Stone-setting designs (prongs, channels, micro-pavé)
- Signet rings, bands, large/heavy jewelry pieces
- High-detail models requiring both strength and burnout compatibility
- Gold, silver, brass, bronze casting workflows
- DLP/mSLA printers (385–405 nm)

### 3. Storage & Handling

- Store at **18–28°C (65–82°F)**.
- Mix gently before printing—does not require heavy agitation.
- Filter resin before returning to bottle (190–220 µm filter).
- Keep resin covered during printing to avoid dust contamination.

### 4. Printing Instructions

Recommended baseline settings (50 µm layer thickness):



Setting	Recommendation
Layer Height	50 µm (25 µm for pavé)
Normal Exposure	3.0–4.0 sec
Bottom Exposure	35–50 sec
Bottom Layers	4–6
Lift Speed	Medium
Light-Off Delay	Enabled

**Supports & Orientation:**

- For prongs and channels: use many fine supports (0.25–0.35 mm).
- Angle large rings **30–45°** to minimize cupping.
- Reinforce heavy sections to prevent deformation during peel.
- Use mid-supports on tall features to avoid drift.

**Handling Strength Advantage:** The extra rigidity of JewelCast allows easier cleaning and handling before investment.

**5. Cleaning Instructions****Two-Stage Wash:**

1. **Initial Wash (20–30 sec):** Use clean IPA; swirl gently.
2. **Secondary Wash (20–30 sec):** Fresh IPA or TPM cleaner. Remove quickly to avoid surface softening.

**Drying:**

- Air-dry **10–15 minutes**.
- Gently blow out cavities with compressed air.



**Important:** JewelCast is stronger than wax-based resins but **still should not be soaked** in IPA for more than 1 minute.

## 6. Post-Curing Instructions

### Low-to-Medium Cure (5–15 minutes):

- UV exposure for **10 minutes recommended**.
- Keep temperature **below 45°C (113°F)**.
- Over-curing may make casting slightly rough or increase ash content. *Note:* Unlike wax-filled materials, JewelCast tolerates slightly longer cures while still maintaining clean burnout.

## 7. Investing Instructions

### Recommended Investments:

- R&R Plasticast, R&R Ultra-Vest, Gold Star investments
- Any gypsum-bonded investment designed for resin burnout

### Investment Procedure:

- Mix under vacuum for **90–120 seconds**.
- Light vibratory settling; avoid strong vibration for pavé settings.
- Bench-set flasks for **2–3 hours** before placing in the kiln.

**Important:** Ensure the model is **100% dry** before investing to prevent steam expansion or micro-fractures.

## 8. Burnout Schedule

### Standard Gypsum-Bonded Investment Cycle:

Step	Temperature	Time
<b>Ramp 1</b>	Room Temp → 300°C (570°F)	2 hours



Step	Temperature	Time
Hold	300°C	1 hour
Ramp 2	300°C → 730°C (1350°F)	2 hours
Hold	730°C	2–3 hours
Casting	500–600°C flask temp	—

**For Heavy / Thick Jewelry Models:**

- Extend 300°C hold to **2 hours**.
- Extend 730°C hold to **3–4 hours**.

**Platinum Casting:** Final burnout can be increased to **850°C** if investment allows.

**9. Casting Recommendations**

JewelCast excels for casting: Gold (10K, 14K, 18K, 22K), Silver, Brass & Bronze.

**Why JewelCast for Stone-Setting Models?** Because it maintains crisp prongs, strong structural walls, better handling before burnout, and reliable detail reproduction.

**Tips for Best Results:**

- Ensure resin is cured evenly — no soft spots.
- Avoid over-cure (reduces burnout cleanness).
- Proper sprue placement ensures metal flow on thicker designs.

**10. Post-Casting Cleanup**

- **Quench time varies by alloy:** Silver/brass: quench immediately after color transition. Gold: short cooling pause before quench.
- Ultrasonic cleaning removes investment faster.



- JewelCast produces a very clean inner cavity after burnout, minimizing polishing time.

## **11. Safety & Disposal**

- Handle resin with gloves and eye protection.
- Avoid direct skin contact and inhalation of vapors.
- Cure used resin and dispose according to regulations.
- IPA waste must be disposed of properly; UV cure before disposal.