



## RESINIFY — INSTRUCTIONS FOR USE (IFU)

### HeatShell Pro (RT-HT200) — High-Strength Thermoforming & Mold Resin For Heat-Resistant Molds, Press Tools & Production-Grade Shells

#### 1. Product Overview

HeatShell Pro is a **high-temperature, high-strength engineering resin** designed specifically for **molds, thermoforming applications, vacuum forming, and low-pressure tooling**. It provides excellent dimensional stability and heat resistance while maintaining durability under repeated thermal cycles.

#### 2. Printer Compatibility

- LCD / mSLA / DLP printers
- 385–405 nm wavelength
- Designed for engineering-grade thermal applications

#### 3. Printing Instructions

Parameter	Recommended
Layer Height	50–100 $\mu\text{m}$
Normal Exposure	3.2–4.0 sec
Bottom Exposure	45–60 sec
Bottom Layers	6–8
Lift Speed	Medium
Light-Off Delay	Enabled

#### Support Tips:



- Use **heavy supports** for mold geometry.
- Angle 15–25° to reduce peel forces.
- Reinforce high-mass regions to prevent warping.

#### 4. Cleaning Instructions

- Wash **3–4 minutes** in fresh IPA or resin cleaner.
- Ensure complete drying before curing, especially inside cavities.
- Avoid prolonged IPA exposure to maintain mold strength.

#### 5. Post-Curing Instructions

- UV cure **25–35 minutes**.
- **Heat cure required for full thermal performance:**
  - i. **Stage 1:** 60°C for 30 minutes.
  - ii. **Stage 2:** 80–90°C for 30 minutes.
- Avoid rapid temperature changes to prevent thermal shock.

#### 6. Usage Guidelines

- Ideal for vacuum form molds, thermoforming dies, and heat-resistant tooling.
- Supports repeated heating cycles without major deformation.
- For best results, machine or sand the forming surface after curing.
- Suitable for forming materials like PETG, ABS, HIPS, and EVA.

#### 7. Safety & Disposal

- Wear gloves, eye protection, and heat-resistant gloves when handling hot molds.
- Cure all waste resin before disposal.
- Dispose of IPA according to regulations.