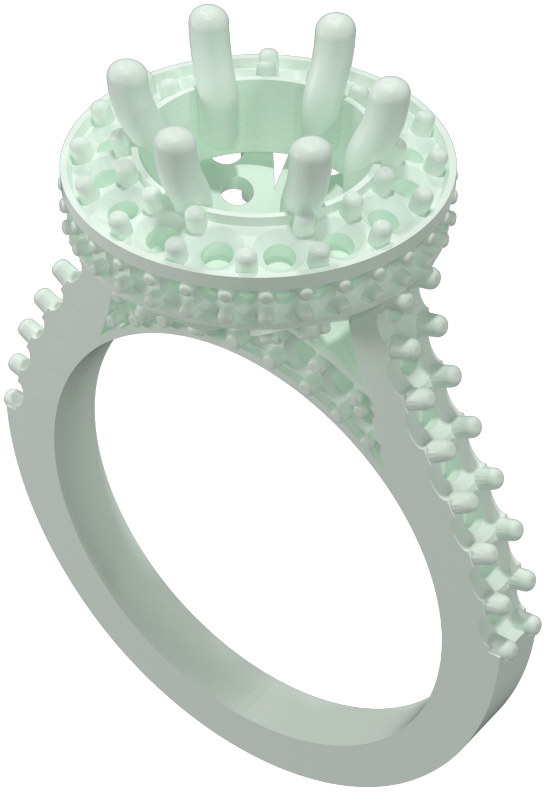


Precision Cast

Designed for extreme structures: thin walls that do not break fine prongs that do not bend — the precision casting solution.

- High-rigidity formula: Maintains shape during printing; supports detach easily without "tearing".
- Uniform curing: Optimized light transmission ensures uniform curing of ultra-thin walls, eliminating "soft spots" and light-bleed pinholes.
- Near-zero shrinkage ensures precise inner diameter of settings, perfectly matching standard-sized gemstones, improving setting efficiency.
- Dense ash residue: Minimal, compact ash structure withstands brief impact of molten metal, greatly reducing the risk of "gas blow" defects.
- Sharp tip retention: Revolutionary low-viscosity, high-precision formula ensures even 0.2mm prong tips print with sharp geometry, reducing post-processing milling.
- Strong, unbreakable prongs: Extremely high strength and just-right toughness keep fine prongs intact during printing, cleaning, and casting, ensuring secure setting.

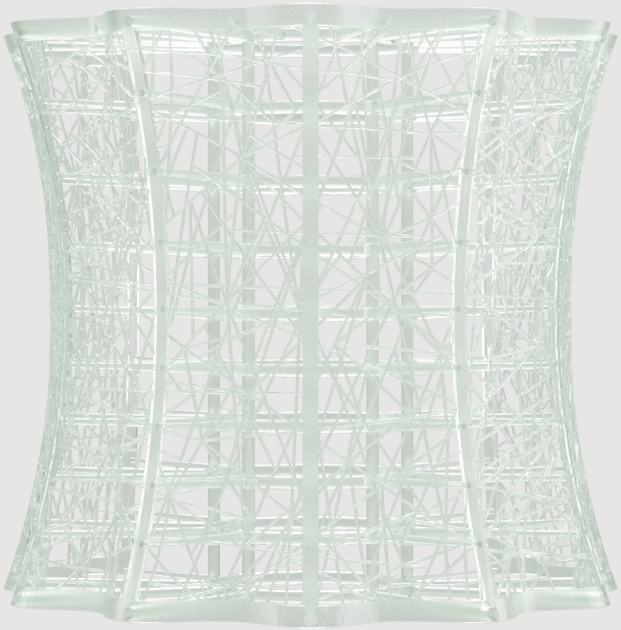
NOVA3D「Precision Cast」is developed specifically for thin-wall and stone-setting castings. High precision, unbreakable prongs. High resolution combined with low viscosity fluidity perfectly replicates eagle-beak prongs, knife-edge prongs, and other extremely fine structures. Cast prongs come out

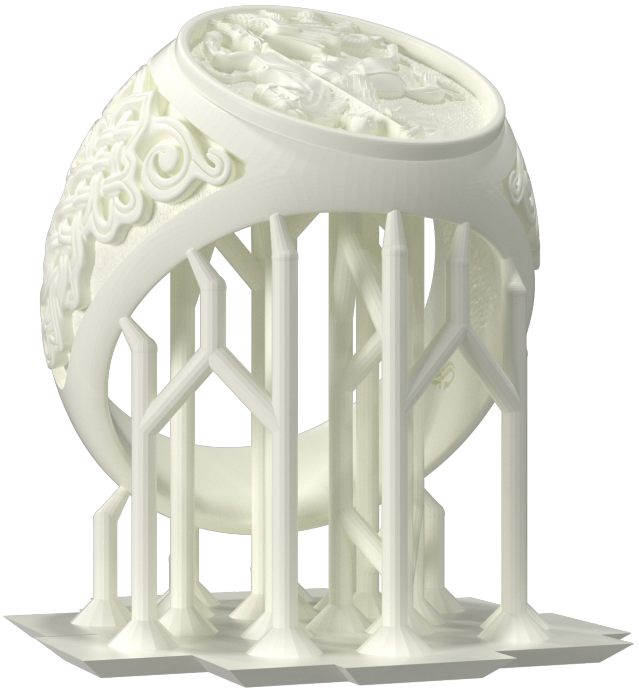
Filigree Cast

Optimized for openwork/filigree designs, clean burnout with no ash residue.

- Optimized for ultra-fine structures such as filigree, vines, and lace — sharp edges and clear details.
- High wax content ensures complete burnout and high casting success rate. Smooth, high-quality surface finish.
- Low shrinkage, no dimensional deviation in printed parts.
- Upgraded formula — easier printing, smoother casting, and easier devesting.

NOVA3D「Filigree Cast」is specifically developed for filigree castings. Combining strength and toughness, it prevents broken threads and deformation, making it easy to reproduce delicate structures and complex details. Elegant emerald green appearance. High-tension formula keeps fine wires intact. Achieves 0.03mm precision with clear, sharp details. Clean burnout with minimal ash residue, facilitating easy devesting.





Hi-Wax Cast

Optimized for the lost-wax process — robust for thick walls, smooth wax burnout. Your first choice for jewelry and precision castings.

- Developed for thick-wall casting, making casting easier!
- High wax content ensures complete burnout and high casting success rate.
- Low shrinkage — no dimensional deviation.
- Pearlescent white, translucent for easy observation and easier model finishing.
- Upgraded formula — smooth surface, easy devesting.

NOVA3D「Hi-Wax Cast」is developed specifically for thick-wall castings. In an era pursuing 3D printing speed, we return to the essence of casting — exceptional burnout and smooth casting surface. Hi-wax casting resin elevates wax content to the core. Not a simple material blend, but re-engineered at the molecular level, giving digital models a burnout experience as pure as traditional wax patterns.

Post-Printing Curing Treatment

Cure prints in a high-power UV curing station (UV intensity ⩾60mW/cm²). Thin parts require ~5 minutes, thick parts 15–20 minutes.

(Tip: Baking at 80°C for 20 minutes before curing improves casting results.)

Casting Plaster Preparation

Select specialty plaster powder for 3D printed resin castings (e.g., "SRS" 3D CAST Jewellery Investment powder). Mix at 100:38 (Powder : Water ratio).

Add plaster to water (not vice versa). Mix 3–5 minutes with a stirrer, then vacuum degas for 2 minutes.

Pour slurry into the casting flask containing the printed model (ensure vents are large and downward-facing). Vacuum degas the flask for another 2 minutes.

Let the flask rest 2–2.5 hours before placing it in the casting furnace.

Casting Process Schedule

Process Step	Time Setting	Temperature Setting	Operation Details
Furnace Heating	1 hour	200°C	Heat furnace from room temperature to 200°C.
Low–Temp Dehydration	2 hour	200°C	Place invested flask in furnace, hold at 200°C for thorough dehydration.
Heating & Vaporization	2 hour	780°C	Ramp uniformly from 200°C to 780°C.
High–Temp Sintering	7 hour	780°C	Hold at 780°C to fully burn out and vaporize resin.
Casting Preparation	2 hour	/	Cool to target metal casting temperature, stabilize for 1 hour before pouring.

Casting Process Cycle Table