Resinify CastPro™

Material Best Practice Guide — Wax-Filled Photopolymer for Castable Crowns, Bridges & Frameworks

This document serves as a comprehensive guide to preparing parts, post-processing, and finishing using Resinify CastPro™ Resin.

About Resinify CastPro™

Identification: Resinify CastPro™ Resin is a wax-filled photopolymer material for the production of full anatomical crowns and bridges with extreme dimensional accuracy in X, Y, and Z, as well as an exceptional surface finish. It can also be used to print partial frameworks.

The burnout for parts 3D printed in Resinify CastPro™ Resin is rapid, clean, and ash-free, resulting in accurate, quality castings. With a moderate wax content, Resinify CastPro™ Resin also delivers low thermal expansion during burnout. Parts 3D printed in Resinify CastPro™ Resin can be pressed into full-contour ceramics.

Applicable printers: This material is tested and approved for DLP and mSLA printers.

1. Getting Started

Primary Supplies

The following supplies are required to print Resinify CastPro™ material:

- 99% isopropyl alcohol (IPA)
- Air compressor
- Cone-shaped paint filter (Starter Kit item)
- Curing unit
- Dual Motion Bottle Roller
- Nitrile gloves
- Material mixing cards
- Paint scraper (Starter Kit item)
- Paint brush
- Paper towels
- Plastic funnel
- Rubber spatula (Starter Kit item)
- Spray bottle with 99% IPA
- Snips, precision blade, or similar tool
- Sealable, opaque material storage container
- Washing unit

2. Capture Patient Data

A digital impression can be captured with a handheld intraoral scanner and CBCT scan, or with a traditional impression and a desktop box scanner.

Software is compatible with the universal .STL file format, making it compatible with almost all dental CAD and model design software as well as digital design services. Models may be designed in-house or outsourced to a design partner.

Design Models for Resinify CastPro™

Models printed in Resinify CastPro™ Resin must have a minimum wall thickness of 0.5 mm.

> **ATTENTION:** Brackets must be thick enough not to break when removing the supports.

Orient Models in Software

Parts must be built horizontally oriented to the platform, with supports connecting only to the occlusal or incisal surface, to avoid manual post-processing of surfaces in direct contact with the mating surface.

- **Spacing:** place models a minimum of 1.5 mm apart
- **Level at build platform:** place supported models 4 mm from the build platform
- **Resolution:** 50 µm Z resolution

Support Models in Software

All approved applications require supports. Always use the support file for supports:

- Minimum support base: 1.0 mm
- Minimum contact tip: 0.45 mm
- Minimum support beam height: 4.0 mm

3. Print Preparation

Mix Material

Resinify CastPro™ material must be mixed in the material bottle prior to use:

1. Place the sealed material bottle on the Dual Motion Bottle Roller for a minimum of 60 minutes.
2. Wait for bubbles to subside before filling the material tray.
3. Mix the material in the material tray gently with the rubber spatula from the Starter Kit before each print. The material should be a uniform color.
4. Preheat the material to de-crystallize the wax component of Resinify CastPro™, if needed.

> **NOTE:** Ensure there are no small cured particles in the material tray. If found, filter the material using the plastic funnel, cone-shaped paint filter, and a spare material bottle.

Fill Material Tray

Do not overfill the material tray — overfilling can cause material to overflow when the build platform moves down at the start of a print job. To add more material, carefully pour it into the tray between prints.

> **ATTENTION:** Adding material while a print is paused, or during a print, will cause a small shift line in the model.

Print with Resinify CastPro™ Material

To start the print, follow the instructions in the printer's Operations and Maintenance Guide. To remove the models from the build platform after the print completes, follow the instructions in the printer's Operations and Maintenance Guide.

Material Storage

- Store the material in a dark environment when not in use.
- Preheat the material before each print for better printing results, and cool the material down after the print is finished.
- Mix the material with a material mixing card before starting a new job.
- Remove material from the material tray and carefully pour it into the spare dark bottle.

4. Post-Processing

Materials Safety

Safety Data Sheets (SDS) for materials used in the printing process are available from Resinify Technology LLC or directly from suppliers. Read and understand the information in these documents prior to operating the printer or handling any media.

> **WARNING:** Fire hazard — some materials used for washing may be flammable. Do not wash parts near any potential ignition source. Washing or drying equipment must be approved for use with flammable solvents. Read the SDS and contact your EHS representative.

Clean Printed Models

Always wear gloves when handling uncured material and alcohol.

> **ATTENTION:** Do not expose Resinify CastPro™ Resin to alcohol for longer than 5 minutes. Excess alcohol exposure may cause casting issues.

Getting started:

1. Open the washing compartment lid.
2. Lift the handle to raise the interior grate to the highest position.
3. Pour 99% IPA into the washing compartment to just below the grate while it is in the lifted position.
4. Place the model on the grate and gently lower the handle to submerge the model in 99% IPA.
5. Close the washing compartment lid and lock in place.
6. Plug in the power cable to turn on the wash unit.

Clean models:

1. Select the High washing program. Set the timer to 00:03:00 (3 minutes) and press Start.
2. Remove the model as soon as the program is complete.
3. Spray the models with the spray bottle filled with 99% IPA.
4. Use compressed air to remove all IPA from the model surface as soon as possible.

Dry Models

Models must be completely dry before post-curing.

1. Place the models on a clean paper-towel-lined surface.
2. Air dry at ambient room temperature/humidity for 10 minutes.

Post-Cure Printed Models

Cure the models using the curing unit: 2 cycles of 50 flashes, flipping models between cycles.

Place models into the curing unit with as much space between them as possible — models should never touch one another while curing. Let models cool completely before handling or starting the next cycle. Flip models between cycles for an even cure.

> **NOTE:** For casting steps, follow the instructions provided by the investment manufacturer.

Manufacturer

Resinify Technology LLC · Detroit, Michigan, USA
Telephone: +1 (810) 888-7373 · Email: support@resinifytechnology.com · Website: www.ResinifyTechnology.com

This document contains information confidential and proprietary to Resinify Technology LLC, provided only to authorized representatives or customers for the purpose of facilitating the use of Resinify Technology LLC's products and services. This document is provided for reference only and is not a substitute for the Instructions for Use and Safety Data Sheets for these products. All trademarks used herein are the property of their respective owners. © 2026 Resinify Technology LLC. All rights reserved.