# FastWax Resin - Instructions for Use

1. **Burnout Schedule**
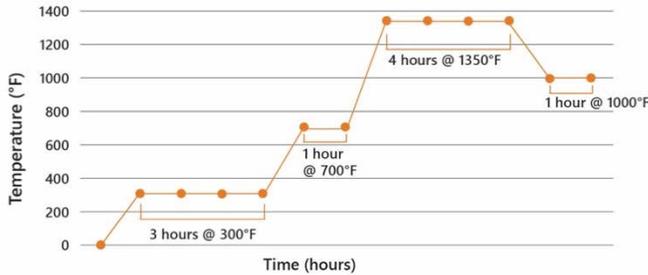
SPECIFIC GRAVITY for Casting Resins: 1.06
All ramp rates set at 28°F per minute
Visit b9c.com/jewelry for C° burnout schedule.

2. **Slice Thickness and Printer Compatibility**

   2.1. FastWax will print on the Core Series 530, 550, and the Core Series 5 XL printers and all printers will print at 50μm resolution.

3. **B9Creations Resin Vat Compatibility**

   3.1. **Resin Vat recharge requirements**

3D Printer Model	Resin Vat	Recharge Time
B9 Core 530 or 550	DuraVat	20 minutes - for every 1+ hour
B9 Core 5 Series XL - 405	FAST™Vat I	None

   3.2. **Resin Amounts**

   1. The following table has the suggested minimum volume to use when printing with FastWax. The table below has conservative minimum volume/masses that will cover the film and then the user can add in the volume/masses of their models for printing.

3D Printer Model	Vats:	Volume (mL)	Mass (g)
B9 Core 530 or 550	DuraVat	10.0 mL + Model Volume	9.0 g + Model Mass
B9 Core 5 Series XL - 405	FAST™Vat (any type)	15.0mL + Model Volume	14.0 g + Model Mass

   2. Model resin volume can be found in B9Create 2.0 software in the top left corner of the main or can be viewed from the Prepare for Printing screen on the printer.

 | B9Create 2.0 | From Printer |
   |---|---|
   | | |
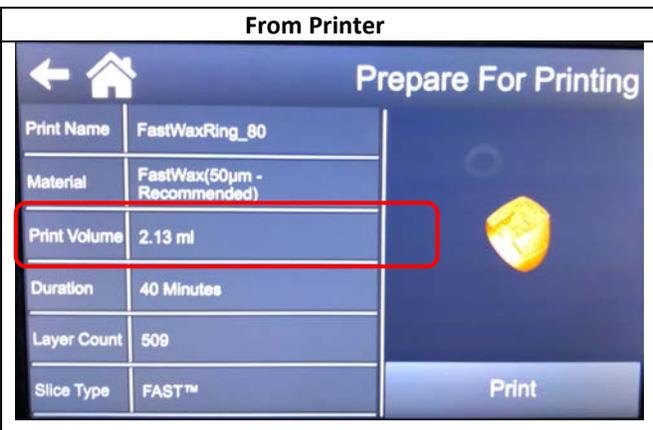
3.3. Reusing Resin
1. FastWax is not recommended to be reused due to the composition of the resin. Using the recommended amount of resin for each print as described in the previous table will allow for minimal waste of product.

4. Pre-Print Procedure
4.1. Using FastWax
1. Orient the models so that they are as low to the table as possible and yield the desired model results. This is to counteract flaking cause by prolonged printing.
2. FastWax is soft and requires more support than you would apply with Emerald or Yellow resins.
   A. Yellow or Emerald Support Example
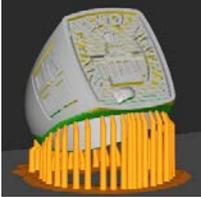
   B. FastWax Support Example
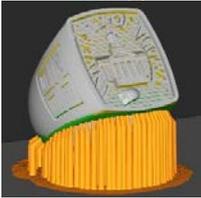
3. Take care when supporting models that have separate features that could be fused together later in the print, such as the shanks joining at the top of ring. Use thicker or additional supports on these areas to ensure stability. Adding angled supports to prevent side-to-side movement may be necessary.

5. Post Processing Procedure
5.1. Cleaning and Curing Process for FastWax
1. Using the B9Clean and new to partially used isopropyl alcohol, wash the prints until clear of liquid resin. The table below can be used as a guide for proper cleaning times.

	Recommended Clean Times (minutes)		
Resin	**Small (Ring)**	**Full Build Table**	**Heavy Models**
FastWax	10	20	20

2. Wait at least 30 minutes to 1 hour for the isopropyl alcohol to completely evaporate to prevent white scarring. If parts are cured before they are fully dry, isopropyl alcohol scarring and resin discoloration will occur.
3. Place in either cure unit for the set amount of time in the chart below. If not fully cured, double the recommended cure time by curing in two cycles in the B9 Model Cure or B9 Model Cure XL.

	Average Cure Time Based on Unit of Model Curing					
FastWax	**Tiny (under 10x10x10mm)**	**Small (10x10x10-20x20x20mm)**	**Medium (20x20x20-40x40x40mm)**	**Large (40x40x40-70x125x127mm)**	**Intensity**	**Duty Cycle**
Model Cure	x2, 3m cycles (waiting 2m in between)	x2, 5m cycles (waiting 2m in between)	x2, 6m cycles (waiting 2m in between)	x2, 7m cycles (waiting 2m in between)	n/a	n/a
Model Cure XL	6m	10m	12m	15m	3	10

6. Performance

6.1. Recommended use

1. This resin is formulated for fine-detailed parts, smooth surface finish on both curved and straight features, and parts under 2-3 inches in the z direction. For parts with sharp corners and small lettering the performance window is like traditional wax. Models taller than 2-3 inches in the z direction may be oriented in B9Create 1.0 or 2.0 to be under that threshold to optimize printability.

2. **Example Images**

   A. Sharp, straight-edged parts

   B. Small, fine-detailed parts

   C. Larger, smooth parts

Document History

Edition	Date	Comments	User
A	10/12/2020	Release	AO
B	10/14/2020	Paired Resin Vats to Machines	ND