

B9R - ESD-Rigid

Instructions for Use

The following instructions are for use of the B9Creations ESD-Rigid resin, which is an electrostatic dissipating material with high tensile strength, high HDT (heat deflection temperature) readable detail, and smooth surface finish. For more detailed safety and environment information please refer to the safety datasheet, available at b9c.com.

1. Introduction

ESD-Rigid is our highest strength and temp resin in our portfolio currently. With high tensile strength and heat deflection temperature (HDT), ESD-Rigid is ideal for producing static-dissipative parts designed to withstand the manufacturing environment.

ESD-Rigid is developed for use on broad range of industries, from electronics to medical device manufacturing.

Note: Use dedicated accessories with B9R-ESD-Rigid resin. B9Creations requires a dedicated build table and the use of the wax release agent.

2. Hazard and Precaution-

Eye contact: Flush eyes with water for at least 15 minutes. Get medical attention if eye irritation develops or persists.

Skin contact: May cause sensitization by skin contact. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Inhalation: Move to fresh air, if symptoms persist, call a physician.

Ingestion: If swallowed, rinse mouth, get medical attention.

Storage: Store in cool, dry place out of direct sun light.

Disposal Considerations: Dispose of unused and non-recyclable liquid resin materials in accordance with federal, state, and local regulations.



3. Resin Handling

Mixing time and Considerations – Shake the bottle for at least 2 minutes before pouring in the vat. This material has the consistency of liquid sand. Pour more than adequate amount into the vat necessary for printing. This is necessary because of the resin-phobic character of the film material, which causes the resin pool when the resin is too low. Leftover resin can be reused again, as long as it has been inspected prior to reusing for any cured particles on the film or floating in the resin. Once the resin is in the vat, use a silicone spatula and mix thoroughly before printing.

4. Pre-Processing

Before printing, the dedicated build table and apply a dab of the release agent about the size of a raisin to the build table. Then rub it in a circular motion over the entire build surface with a paper towel or microfiber cloth. Leave the release agents on the build table for 1-2 minutes before lightly buffing the residue, leaving the build table clean and smooth. For step by step Wax Release agent instructions please reference our Wax Release Agent [Instructions](#) for safe use.

5. Processing Printed Parts

Set up: Insert prepared build table and vat into the compatible B9Creation printer.

Printing: Prepare a print job using the B9Create 2.0 software. (Note: Depending on the size and geometry of the part, it is necessary to use either "Default" or "Medium" size supports for the overhangs.) Send print job to printer. Begin print by selecting print job from print menu. Follow any prompts or dialogs shown on printer screen. Printer will automatically complete print.

Part removal: Remove build table from printer. Remove part from build table using approved part removal tool.

Rinsing: Required – Rinse parts in our B9Clean with 90%+ isopropyl alcohol for 10 minutes, blow off and repeat, as necessary. Please see below for further instructions.



6. Directions for cleaning and post cure treatments of printed part(s)

- a. Remove build table with the print from the printer and take it directly to the B9Clean unit.
- b. Run the B9Clean with 90%+ isopropyl alcohol for 10 minutes.
- c. Then use a compressed air tool to dry part, looking for residual liquid resin, which will be visible as it remains glossy. If residual resin remains, repeat step b and c as needed until the surface has a matte finish when dry.
- d. Allow all the isopropyl alcohol to evaporate off the part before curing. (Optional: Remove supports and foundation before or after post-cure).
- e. Place the part in the B9Cure clear container with distilled water. Depending on the size and dimension of the printed part, cure for 10 minutes per side. Refer to the [B9 Model Cure](#) or [B9 Model Cure XL](#) User Manual for full detail