



## Best practices for use of SLA resins

1. Always read and understand the Safety Data Sheet for your specific resin(s), and follow those recommendations.
2. Wear appropriate gloves and other proper personal protective equipment such as safety glasses and lab coat when handling resin, green parts, and any items wet with uncured resin.
3. Avoid caustic cleaning agents (such as ammonia, Windex®, other glass cleaners) around SLA systems and platforms.
4. Clean up small resin spills promptly and keep all surfaces resin free by wiping away with paper towels (or other disposable cleaning material) moistened with isopropyl alcohol. Dispose of cleaning materials according to the SDS and your local regulations – it is likely hazardous waste.
5. Ensure platforms are clean, cured, and dry before reinserting in SLA systems. Water and trace solvents can contaminate the entire vat, and cause issues with resin performance. Always UV cure build platforms before using them again.
6. Check that the recoater/Zephyr™ blade is clean of cured and partially-cured resin before starting the next build. Refer to the printer User's Guide for detailed instructions.
7. Make sure the resin surface is free of bubbles before you start building parts. Some resins are more prone to persistent bubbles than others. For those resins, there are directions in the Tips & Information document describing the means to remove bubbles from the resin surface. For some printers, there is an automatic bubble removal routine in the printer software that can be used at the start of the build.
8. When stirring resin, avoid stirring up the very bottom of the vat. It is very common that partially-cured material and debris are at the bottom of the vat. If you stir that back up from the bottom, you could introduce debris and/or partially polymerized material into the rest of the vat and cause part building problems or part surface defects.
9. Check and log resin viscosity regularly, and stabilize regularly according to the stabilization procedure for your specific resin. Contact your field engineer/technical support if you have questions, if you need the procedure, and to obtain material stabilization materials.
10. Clean up and remove any crashed builds IMMEDIATELY upon detection. Avoid allowing debris to build up in vats. After a crashed build, make sure the recoater/Zephyr blade is clean and smooth. Debris that is not removed will cause issues with future builds.
11. Before removing parts and platform from the SLA system, drain as much resin back into the vat as possible. Make sure to pour any material pooling in trapped areas back into the vat. Then set the platform with the parts on it, angled against the elevator arms for 10-20 minutes.
12. Use recommended solvents for part cleaning, whenever possible. Alternate solvents can either be less effective (not properly clean liquid or partially polymerized resin off parts) or too aggressive (cause surface cracking or degrade mechanical properties of parts).
13. When drying solvents or water off parts, fast evaporation can cause surface cracking. For example, blowing off parts with room-temperature low-pressure compressed air is more effective and less aggressive than putting parts in an oven with fans.