



# Customer Information Bulletin

# CIB

CIB #: 0412  
Date: 8 June 2012  
Status: Non-confidential

Subject: Tips & Information for part building with Accura<sup>®</sup> PP White (SL 7811) material

1. **Software version:** It is best to use the most current software version, to ensure compatibility with newly-created build styles.
2. **3D Print software entries:** Each material on a SLA system uses a specific material entry in the 3DPrint™ software. The entries contain the values for Dp and Ec used for each material. See the 3DPrint Users' Guide for details. The values for Dp and Ec are shown below.

## Recommended Starting Parameters

	iPro™ 8000/9000 System
Dp (mils)	5.25
Ec (mJ/cm <sup>2</sup> )	10.97
Baseline Scale Factors (x, y, z)	1.0020, 1.0020, 1.0000
Baseline Linewidth Compensation Value	0.075 mm (0.003")
Recommended vat temperature	28 °C

3. **Part Supports :** The default parameters are optimized for build success. Modifying supports may cause the build to crash, so proceed with caution if you change support parameters. In some cases, the supports may be crowded on some parts and may require editing. This is because Accura PP White has high initial cured ("green") strength, so supports may get difficult to remove without damaging the part surface, especially if they are crowded.
4. **Hatch Overcure:** Hatch overcure has been optimized to combine reliable part building and build speed. It is highly recommended that the hatch overcure values not be reduced from default. However, you can decrease hatch overcure to increase build speed. In general, the increased throughput comes at the cost of accuracy and mechanical properties of both green and post cured parts.
5. **Building Large or Bulky Parts:** We define this as an individual part cross-section greater than 4 square inches. Due to heat of reaction, an uneven part top surface may be observed. This can be reduced somewhat by reducing recoat speed from 2 ips to 1ips. Another effective option is to add 2 additional sweeps. A special style was created to maintain the best part quality on large/bulky parts, **Part\_SL7811\_EXCT\_0040in\_LFLT.rcs**.

**May be distributed**

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6. **Part cleaning:** Parts must have excess material removed prior to post-curing.
  - a. Drain excess material from the parts for 10-15 minutes to remove most of the uncured material.
  - b. Immerse parts in TPM and agitate for a minimum of 20 minutes (maximum 90 minutes). Time required will depend on geometry. It's important to make sure the parts are thoroughly clean, or excess material will get cured into crevices or onto surfaces, affecting part resolution and/or accuracy. Parts may be cleaned on the platform, or off the platform.
  - c. Remove parts and drain excess TPM back into your tank.
  - d. Rinse parts with water, using water spray to fully remove TPM and excess diluted material.
  - e. Air dry parts. You may use compressed air (low pressure) to dry the part and remove liquid from crevices.
7. **Support removal:** It is preferable that supports are removed prior to UV post cure, to avoid damaging the part surface.
8. **Resin Stabilization:** Like the other resin types, Accura PP White needs to be stabilized. Please follow 3D Systems Resin Stabilization guidelines to maintain the best performance and prolong resin life.