CtP Plate Rub Back Procedure for RIP Transfer Curve Calibration

Summary:

This procedure assumes that the CtP unit, plate processor and chemistry are already set to nominal specifications for the equipment/substrate combination.

Once the equipment is operating at specification, this procedure is used to determine the RIP transfer curve settings to result in linear percent output to a rubbed back plate (i.e. 50%=50%, 40%=40%, n%=n%…) During RIP transfer curve calibration, the plate rub back procedure is applied to replicate the dot loss on press after 5000 impressions of printing.

The percent targets on a machine processed plate are firmly rubbed back with developer soaked Photex wipes. Then the surface of the plate is wiped clean and dried using fresh Photex wipes. Rubbed back plates are used to take the measurements with an appropriate plate dot reader. (Note: densitometers are not plate dot readers, a plate dot reader is a specific instrument designed for reading percent dot on this substrate) Plate rubbing back and adjustments of the RIP transfer curve are done until the rubbed back plate is at least within 1% from the target (i.e. 50% target should read 50% ± 1% on rubbed back plate).

Materials:

Figure 1 Materials

- Protective Gloves
- Goggles
- Non lint wipes such as Photex wipes

    BBA Nonwovens at (800) 338-7954.

    Photex Scanner Wipes – Item 548026, 9 inch x 13 inch, 100/box

- Plate dot reader
- Developer in an appropriately labeled squirt bottle

Procedure

1. Ensure the CtP imager and processor is set up to specification and with fresh chemistry.

2. Set the RIP transfer curve to linear (i.e. 50%=50%, 40%=40%, n=n…). Different RIPs use different terminology and procedures for creating transfer curves but they usually all start with an uncalibrated linear curve.

3. Output a plate from each CtP line using the percent dot linearization image.

4. Measure the plate using the plate dot reader. The patches, 1% through 99%, are to be read and recorded immediately after the plate has exited the processor (before rubbing back). Set dot patches to match the rip curve calibration chart for your software.
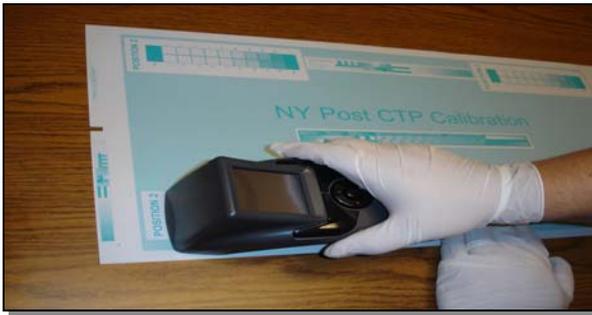

Figure 2 Measuring a Plate

5. Wearing rubber gloves and goggles, place one plate on a flat surface, take a few Photex wipes and liberally dampen them with plate developer.

Figure 3 Photex Wipes being dampened with Plate Developer

6. Firmly rub back the percent dot area on the plate. Don't be shy with the rubbing back– the printing press will be very aggressive on the plate – use as much force as would be used to scrub a dirty pan caked with burned food.
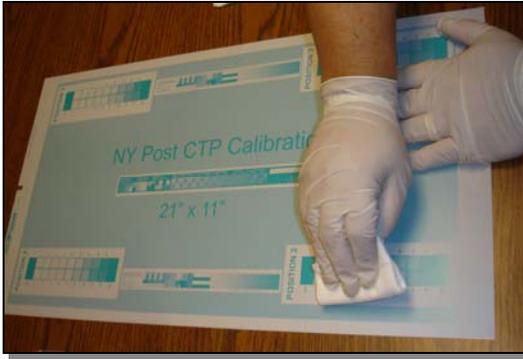
Figure 4 Rubbing back the Plate

7. Dry the rubbed back area using a fresh Photex wipe.

8. Re-measure and record (1%-99% patches) the rubbed area using the plate dot reader. Depending on the plate system characteristics, this can be up to 5-12 percent different than the intended value at certain percent dot readings.

9. If the output is not linear within ±1 percent of the intended value, adjust the RIP transfer curve and enter the necessary values.

10. Output a plate after adjustment has been made to the CtP system and confirm linear results (1% tolerance from target for all patches).

11. Repeat the steps until the rubbed back plate is within 1% from the target (i.e. 50% target should read 50% ± 1% on rubbed back plate)

Tips: Linearization should be performed for every color.

If the RIP is not connected directly to the CtP device and it services many CtP devices, measure the plates from the different CtP devices used in the operation and average the results to develop a compromise RIP transfer curve.

If multiple RIPs are used to create files for a CtP device (a RIP Farm), ensure that they are all programmed to use the same transfer curves.