

Topics of the month: **Drying, Post Exposure & Light Finishing - The final steps to determine the plate quality**

=Facts=

Even optimal conditions were given in the exposure and washout process, if either of drying, post exposure or light finishing condition is not adequate, the plate will be completed in a poor quality. Great attention should be paid to these steps since they determine the final quality of the plate.

=Tips=

1) Drying time

The drying time and stabilization times are actually the evaporation steps. The solvent content in the plate after the wash out process must be assured to evaporate. The drying time is actually proportional to the wash out time. Practically, the longer the plate is in contact with the solvent, the longer will be the drying time. Also, it varies according to the solvent type and plate thickness.

The conventional drying process is done with heated pulsed air. The drying temperature must be 60 to optimize the drying process. Higher drying temperature (over 70) is not acceptable because it causes shrinking of basefilm.

2) Post exposure / Light finishing

These two steps are in most of the cases carried out simultaneously in a same unit. But in case they are done separately, the post exposure with UV-A lamps should be given first because it will fix the plate in its final chemical structure, giving it more strength, more resistance and the final plate hardness to go to the pressroom.

A too short post exposure time can be the reason for poor plate resistance to solvents and ozone, limiting the printing run length. A too long post exposure can lead to loss of plate flexibility.

06704AF

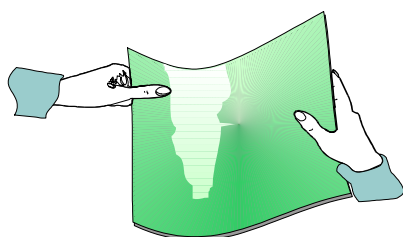
TEL: 81 (0)3 3507 2579 FAX: 81 (0)3 3507 2389

<http://www.asahi-afp.com>

asahi-afp@om.asahi-kasei.co.jp

The light finishing process with UV-C lamps is to remove the stickiness of plate that could be a problem during the printing.

The latitude of exposure is narrow with this process so a good care must be taken to ensure it is correct. A lack of light finishing will leave some tackiness on the plate, while an excessive light finishing will provoke a “cracking” defect*1, affecting the mechanical properties of the plate such as flexibility and elasticity.



*1) The plate has been given an excessive light finishing in case it looks white and matted when hold bent.

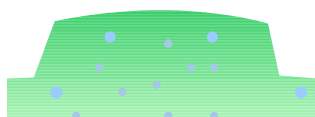
=Hints=

Stabilization time

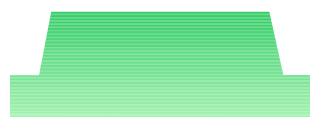
The drying process in itself is often insufficient to complete total solvent evaporation. A second evaporation step is thus additionally recommended. This step is the stabilization time.

The plate should be laid flat at room temperature ideally for 8 hours. A too short resting time can cause thickness tolerances problem. A too long resting would not present any problems.

In some occasions, no stabilization time is given depending on the market. In such a case, it is important to give a sufficient drying time to make plate recover to the original thickness.



Before Stabilization



After Stabilization

06704AF

TEL: 81 (0)3 3507 2579 FAX: 81 (0)3 3507 2389

<http://www.asahi-afp.com>

asahi-afp@om.asahi-kasei.co.jp