

# TECHNICAL BULLETIN

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## High Brightness Paper – “Staining”

A recent issue showing up in printing plants involves some of the #1 High Brightness papers; gloss, satin, or dull coated versions. The issue manifests itself as a yellowish “stain” that develops on the unprinted backside of moderate to heavy 4/C printing.

This is not truly a stain, but is a discoloration caused by the de-activation of the optical brighteners in the paper coating. This can be seen easily when illuminated by a “black light” as a dark or “dead” area in the unprinted paper surface.

This is similar to a chemical gloss ghost, except the ghost is in the paper coating. It is believed that the oxidation by-products of vegetable oils may be a component in the creation of this ghost. Once the “stain” is created, there is no good way to cover it; except for heavy coverage of dark color.

The best recommendation is to run inks and OPVs of low vegetable oil content. This will minimize, not necessarily eliminate, the potential for the staining to occur. Along with low vegetable oil content, backing the work up quickly and then subsequent winding may help. Both those actions help to evacuate gaseous by-products from the printed stack.

There is limited laboratory testing that can be done to try and predict the behavior of a specific stock. These tests can't be definitive as it is impossible to mimic pressroom conditions completely. A positive reaction indicates the potential of a problem in the pressroom; a negative reaction does not guarantee that there will be no problems.

BSI's Quickset Process has been found to help minimize the problem. New century is our best option for spot colors.

601V11348 PDG Ultra is the recommended oil OPV or the Soy OPV 711V10282.

The Kentucky Shine products as an OPV also help minimize the problem.

*The print job needs to be evaluated as these inks are low in oxidative material and potential rub or marking issues may need to be dealt with.*

BSI products that may aggravate the problem would include Earth Pride, Hi Gloss SSS, Synthetic Stock, and most standard oil based OPV products.

### FOR YOUR PROTECTION: PRE-TESTING ON ACTUAL SUBSTRATE IS ALWAYS RECOMMENDED

The information and recommendations on this technical bulletin are, to the best of our knowledge, reliable and current at the time of publication. However, due to the variations in stocks and other variables inherent in the printing process, which are beyond the control of the ink maker, BRADEN SUTPHIN INK cannot assume any responsibility for the final outcome of the printed job.

Rev. 1/2004



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