

Ask the Technical Experts!

One of the benefits of membership is the technical expertise provided by Printing Industries of America. Our technical experts from the Center for Technology and Research discuss common production problems and issues. The Center for Technology and Research helps members with environmental, health, and safety concerns; consulting and on-site technical assistance; Technical Association of the Graphic Arts; technology training; and simulators.

Q. How long does it take sheetfed litho ink to dry completely?

A. Ink setting and ink drying are two different phenomena. Ink that has set allows the sheet to be handled without easily offsetting or smearing. Many printers refer to ink setting as ink drying, since some chemical drying has occurred at this stage. Ink setting involves a rapid increase in the viscosity of the ink on the printed sheet. The causes of ink setting include absorption of solvents into the substrate, solvent evaporation, increases in the ink's viscosity due to the ink's thixotropic properties, and reduction in the temperature of the ink along with quick setting varnishes. Actual drying of the ink is a complicated chemical reaction involving oxidative polymerization using drying oils and other drying agents that react with oxygen in the air. A "hard dry" or completion of the chemical drying process can take as long as 24–48 hours.

Q. I'm getting a missing font warning when I package my artwork even though all the fonts in the file are properly linked. What could be causing the renegade font issue?

A. Unfortunately, there can be numerous reasons for renegade missing fonts in files. If you can't find the culprit in your native file, check all the supporting files for missing fonts. Oftentimes a linked .EPS file will include fonts that don't convert properly, which can cause programs like InDesign to raise a red flag indicating a missing font. If you have an .EPS file that includes text, you can quickly convert the text to outlines by creating a new Transparency Flattener Preset and applying it to your .EPS files. Go to Edit > Transparency Flattener Presets in Adobe Illustrator and create a new preset. Check the "Convert All Text to Outlines" option, ensure your raster/vector balance is set to 100% for optimal quality and your resolutions for line art and gradients are set to 1200ppi and 300ppi respectively, and save this as a new preset. Now, when you resave your .EPS files ensure you apply your new preset and all the text in the .EPS will be converted to outlines. This will fix any renegade missing font issues when you package your file for print production. This will also work in InDesign if you're saving to .EPS format.

Q: I've heard that inkjet presses can't effectively print on coated papers. Is this still the case?

A. Printing on coated papers generally remains a challenge, especially on fast inkjet web presses, because the combination of the paper configuration and drying capability may not be sufficient for the ink to dry quickly enough to avoid marking. The solutions today are to either use pricey paper that has been treated with a special ink-receiving layer or add a primer via an optional in-line priming unit. There continue to be developments in this area—we recently gave a 2017 InterTech Technology Award to Screen Americas' Truepress Jet 520HD inkjet web press because of its ability to print on coated papers with specially developed ink. Some of the B2-sheet-size (23" x 29") inkjet sheetfed presses (such as another 2017 award recipient, the Komori Impremia IS29) use more expensive inks and cure via LED UV, so coated paper is not an issue. Also, one of the B3-sheet-size (14" x 20") inkjet cut-sheet presses promotes its ability to print on selected coated papers. [Review all 14 InterTech Technology Award recipients, including the HP PageWide Web Press T490HD and the Gallus Labelfire 340, at <http://www.printing.org/intertech>.]

Printing Industries Resources:

Offering unbiased and confidential results, Printing Industries of America provides a range of testing and laboratory services to help solve printing-related problems. For more information, please contact Jim Workman at 800-910-4283, ext. 710 (direct 412-259-17810), visit www.printing.org/labservices or email labservices@printing.org or jworkman@printing.org.
