

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; and technology training.

Q. What is paper sizing?

A. There are two types of paper sizing: internal and surface sizing. Internal sizing is added to paper furnish before forming the paper and gives the paper “wet strength” or resistance to penetration of water and ink oils. Blotter and filter papers are examples of unsized papers. Lithographic papers are sized to give the paper some resistance to absorbing the fountain solution and falling apart. Surface sizing is applied to the paper by sizing rollers before the paper web is completely dry. Surface sizing bonds the surface fibers together, increasing the paper’s surface strength. Some of the surface sizing penetrates the surface of the paper reducing ink penetration and increasing the ink holdout. Excessive surface sizing contributes to the paper fibers not bending and cracking in folding operations.

Q. Are online training programs acceptable for compliance with OSHA's worker training requirements?

A. Online, self-paced computer-based training can be a valuable part of an effective safety and health training program. However, the use of online training by itself is not sufficient to satisfy OSHA training requirements unless that training contains interactive and hands-on components. To be effective, training must result in mastery of the training material. Online training without interactive and hands-on components does not meet this goal.

Q. I just purchased a used 40-inch, 5-color sheetfed press to replace a smaller-format press. What installation issues, if any, do I need to consider?

A. We posed your question to Ray Hartman, a PIA consultant who specializes in press issues and plant layout. Ray said to ensure that you can power the press with 480V x 250A x 60Hz and to ground it with a 3-foot solid copper rod. The press floor should have compacted gravel and 14–18 inches of concrete (depending on soil type) reinforced with steel rebar. Finally, the press should be positioned so that there is adjacent space for at least four pallets.

Printing Industries Resources:

Offering unbiased and confidential results, Printing Industries of America provides a range of testing and laboratory services, as well as consulting. For more information, please contact techhotline@printing.org, labservices@printing.org or consulting@printing.org.