Mohawk Navajo

Uncoated Paper
Printing and Handling Hints

Navajo Papers are easy to print on when following these simple hints. It is recommended to pre-test all printing procedures prior to press time to ensure the desired results are achieved.

OFFSET INKS: Print Navajo like any conventional uncoated paper. If you plan to follow offset printing with digital printing or ink jet printing, be sure that the inks are compatible with those applications. Inxwell sheets have the following additional offset tips. Mohawk's proprietary Inxwell technology creates an easy running sheet with a tight surface and exceptional opacity. Ink and toner sit on top of the sheet for better color, greater detail, and outstanding performance in all popular printing processes.

OPTIMUM RESULTS ON INXWELL PAPERS: Printing requires a constant focus on consumables: inks, blankets, fountain solutions, and paper for the best printing and drying results. Navajo and Options have been engineered to work well within the wide variety of press conditions the market presents. The following review of standard lithography practices will ensure your success with Inxwell papers.

1) Compared with other uncoated papers, these grades provide unusually refined photographic reproduction. Ink saturation techniques for uncoated papers, such as UCR (under color removal) or GCR (gray component replacement) can be used for greater contrast, but are not necessary. With high ink holdout paper, sharp and smooth midtones and shadow areas are easy to achieve.

Like other uncoated papers, a total print density range of 260% is a good target. Screen rulings from 150 to 200 lines per inch and even higher can be used with excellent results.

2) Mohawk's Inxwell papers require less ink and water than other uncoated papers. Nominal wet ink densities should be close to: K-1.30, C-1.15, M-1.15, Y-0.85 for clean and sharp print.

3) Match colors will appear brighter and more saturated than on other uncoated papers.

4) Matte or dull varnish and aqueous coating can be used to help seal the sheet, a technique often used for rub protection on uncoated papers. Remember that inline varnish needs as much time to dry as a solid ink color.

5) As always, minimize water levels, and run with a conductivity below 2,000 micromhos and a pH level between 4.5 and 5.5 for optimal water performance.

6) Uncoated paper normally needs more drying time than coated paper. Good delivery practices are necessary on smooth finish, high ink holdout papers. The use of spray powder is advised. Large particle size powder, generally 30 to 40 microns, will separate the sheets for greater air circulation. Running with small stacks—500- 700 sheet lifts—will help prevent ink set off.

7) The carton label reminds the printer that Mohawk Options and Navajo are high ink holdout papers.

8) The high opacity of the Inxwell papers may allow the use of a lighter weight sheet in some applications—great for postage costs. Opacity measures the proportion of light that does not penetrate the unprinted paper. The opacity of Navajo is two points higher than most other competitive grades.

Inxwell papers perform well in all of the popular printing processes: offset, heatset web, waterless, embossing, thermography, foil stamping, envelope conversion, binding, and digital printing.

For more information and samples, please call your local merchant or Mohawk at 1 800 the mill.
www.mohawkpaper.com

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HANDLING: Keep Navajo products wrapped until the moment of printing. It is essential to let the paper acclimate, for a minimum of 24 hours – longer during cold weather – in the press room while still wrapped in mill packaging. Keep Navajo products covered during drying, between passes and prior to any finishing work. Pressroom conditions should be as close as possible to 70 degrees, and 40-50% relative humidity.

VARNISH: Matte or dull varnish and aqueous coating are optional as a surface protector.

FOLDING AND SCORING: For best results, 100lb. text papers and all cover weights should be scored before folded. Folds against the grain, gatefolds, and folds running throughout heavily inked areas should also be scored. As a general rule of thumb, the correct creasing channel is determined by multiplying the paper's caliper by two and then add the width of the creasing rule. (Note each 1 pt. of rule equals .014 inch). Mohawk recommends a minimum 2 pt. rule for all scores both with and against the grain. Sometimes a wider score must be added – but too much width can be worse than too little, causing the sheet to fold unevenly on one side of the score rather than the center. A double, parallel score can be used to keep it straight.

BINDING: Navajo is suitable for all standard binding processes. It is important to plan for proper grain direction in all binding applications. Grain direction should run parallel to the spine for optimum results.

LASER GUARANTEED in digital and cut-size papers within the limits of the printer. This guarantee is extended after printing offset if Mohawk Preprinting guidelines for digital applications are followed:

PREPRINTING GUIDELINES FOR DIGITAL APPLICATIONS: Most Mohawk papers are engineered for high-performance on both offset and digital printing equipment. Many applications, such as forms and letterheads, require you to have folio-size sheets preprinted with offset lithography and trimmed down for subsequent printing in digital equipment. We guarantee our folio papers for these applications, provided standard industry guidelines for preprinting are followed. Please note that heat-set web offset printing is not recommended for pre-printed shells.

PAPER SELECTION: Papers with good formation (an even distribution of fibers) and a smooth finish provide the best results in most digital equipment. Bright white paper will add to color brilliance, contrast and definition. Toner does not adhere well to uneven paper surfaces, so heavily textured or embossed papers are not recommended for traditional digital presses. Check the specifications of the digital printing equipment before running coated paper. The paper's basis weight should fit within the equipment's specifications. Some machines must run 20 to 24 lb. (70 to 90 gsm) paper; others have a much wider range. Plain paper samples for testing in digital printers are available. Paper merchants can provide samples of the specific paper grade, basis weight and size.

Although newer digital color production presses can run a wide range of substrates, HP Indigo presses have particular substrate limitations that have traditionally been solved by using sapphire-treated papers. Mohawk's i- Tone® process was developed to overcome these issues, improving both toner adhesion and blanket memory. It enhances print quality on the HP Indigo, the Kodak NexPress, and the Xerox iGen3™ Digital Production Press. Unlike Sapphire-treated papers, Mohawk i-Tone papers can be offset printed and then run through an HP Indigo press. Please consult your HP Indigo printer for specifications for the offset print run.

PRINTING AND DESIGN: Stationery and forms preprinted with ordinary ink will smear under the extreme heat and pressure of fuser rollers in high-speed copiers. In addition, improper handling and storage may cause jams. It is important to follow these standard industry practices when printing jobs that will be run through copiers and laser printers.

Provide the copy/laser printing schedule to the offset printer, so that the job is planned correctly. Discuss options if it is a tight turnaround.

The ink manufacturer can provide inks for laser applications. The job will require oil-based heat- or thermal resistant inks. Inks should withstand 400° Fahrenheit without smearing. Avoid metallic inks as the metallic flakes can build up on the fuser rollers. Fluorescent inks are also not recommended. Minimizing ink and water on press should help reduce the possibility of wavy paper.

Anti-offset powder or spray residuals can interfere with toner application and build up in the system, causing problems.

Toner does not adhere well to heavily printed areas. The digital image should print directly onto the paper, avoiding an overlap of offset ink. If the job specifies an overprint of a preprinted solid area, use a halftone screen to achieve the desired color.

If planning to imprint just one side of the preprinted form, print and pack so that the top (felt) side is imaged. For two-sided copying, the bottom (wire) side should be imaged first. Note: Mohawk papers are packed felt side up in cartons and reams. Care should be given when specifying relief processes, such as thermography, engraving, foil stamping, and embossing as they may damage your equipment and cause jams.

Paper must be trimmed precisely, square, and with clean cuts. Improperly trimmed paper can misfeed and cause performance problems.

PACKING AND STORAGE: Prevent tight plastic shrink-wrapping as it will curl edges and corners, leading to jams. Packing with chipboard is preferable. After wrapping, store preprinted material for 10 days before using to ensure completely cured ink and acclimated paper. Store at 50% relative humidity, at 70° Fahrenheit.

A wide variety of papers available for use in HP Indigo presses are sapphire treated to yield consistent image quality and maximum ElectroInk adhesion. Papers that have been sapphire treated are sensitive to environmental conditions. Heat and humidity play a key role in maintaining the shelf life of such papers. Product shelf life is approximately 6 months from the treatment date when store at 70 degrees F (21 degrees C) and 50% relative humidity. We recommend keeping sapphire treated papers in the original shrinkwrapped packages until ready to print. Any unused paper should be rewrapped for protection and to ensure optimum performance on press.

ENVELOPES: Testing the runnability of envelopes is recommended. Because of multiple paper thickness and variable envelope construction, we cannot guarantee performance once papers are converted into envelopes. Paper merchants can provide specific envelope samples for testing.

Due to the large variety of equipment available for both offset and digital printing, we strongly recommend testing any paper before committing to a large program. For more information and samples, please call Mohawk at 1 800 THE MILL.
Or www.mohawkpaper.com

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