

Printing

Paper handling

Maintenance

Troubleshooting

Administration

Index

The print quality and feed reliability of your printer and options can vary with the type and size of print material you use. This section provides guidelines for each type of print material. For information on card stock and labels, refer to the *Card Stock & Label Guide* located on Lexmark's Web site at www.lexmark.com.

Always print samples on the print material you are considering before buying large quantities.

Click a topic for more information:

- Paper characteristics
- Recommended paper
- Unacceptable paper
- Choosing preprinted forms and letterhead
- Choosing prepunched paper
- Choosing paper
- Choosing envelopes
- Choosing labels
- Choosing card stock
- Choosing transparencies



Printing

Paper handling

Maintenance

Troubleshooting

Administration

Index

Paper characteristics

The following paper characteristics affect print quality and reliability. We recommend that you keep these guidelines in mind when evaluating new paper stock.

For detailed information, refer to the *Card Stock & Label Guide* located on the Lexmark Web site at www.lexmark.com.

Weight

The printer can automatically feed paper weights from 60 to 176 g/m² (16 to 47 lb bond) grain long. Paper lighter than 60 g/m² (16 lb) might not be stiff enough to feed properly, causing paper jams. For best performance, use 75 g/m² (20 lb bond) grain long paper. To use paper narrower than 182 x 257 mm (7.2 x 10.1 in.), we recommend that the basis weight be greater than or equal to 90 g/m² (24 lb bond).

Curl

Curl is the tendency of paper to curve at its edges. Excessive curl can cause paper feeding problems. Curl usually occurs after the paper passes through the printer, where it is exposed to high temperatures. Storing paper unwrapped in humid conditions, even in the paper tray, can contribute to paper curling.



Printing

Paper handling

Maintenance

Troubleshooting

Administration

Index

Smoothness

The degree of smoothness of paper directly affects print quality. If the paper is too rough, the toner does not fuse to the paper properly, resulting in poor print quality. If the paper is too smooth, it can cause paper feeding problems. Smoothness needs to be between 100 and 300 Sheffield points; however, smoothness between 100 and 250 Sheffield points produces the best print quality.

Moisture content

The amount of moisture in the paper affects both print quality and the ability of the printer to feed the paper properly. Leave the paper in its original wrapper until you are ready to use it. This limits the exposure of the paper to moisture changes that can degrade its performance.

Grain direction

Grain refers to the alignment of the paper fibers in a sheet of paper. Grain is either *grain long*, running the length of the paper, or *grain short*, running the width of the paper.

For 60 to 176 g/m² (16 to 47 lb bond) paper, grain long fibers are recommended. For papers heavier than 176 g/m² (47 lb bond), grain short is preferred. For the multipurpose feeder, 60 to 135 g/m² (16 to 36 lb bond) paper, grain long fibers are recommended. For the multipurpose feeder, papers heavier than 135 g/m² (36 lb bond), grain short is preferred.



Printing

Paper handling

Maintenance

Troubleshooting

Administration

Index

Fiber content

Most high-quality xerographic paper is made from 100% chemically pulped wood. This content provides the paper with a high degree of stability resulting in fewer paper feeding problems and better print quality. Paper containing fibers such as cotton possess characteristics that can result in degraded paper handling.

Recommended paper

To ensure the best print quality and feed reliability, use 75 g/m² (20 lb) xerographic paper. Business papers designed for general business use may also provide acceptable print quality.

Always print several samples before buying large quantities of any type of paper. When choosing any papers, consider the weight, fiber content, and color of the paper.

The laser printing process heats paper to high temperatures of 225°C (437°F) for MICR (Magnetic Ink Character Recognition) applications, and 205°C (401°F) for non-MICR applications. Use only papers that are able to withstand these temperatures without discoloring, bleeding, or releasing hazardous emissions. Check with the manufacturer or vendor to determine whether the paper you've chosen is acceptable for laser printers.



Printing

Paper handling

Maintenance

Troubleshooting

Administration

Index

Unacceptable paper

The following papers are not recommended for use with the printer:

- Chemically treated papers used to make copies without carbon paper, also known as carbonless papers, carbonless copy paper (CCP), or no carbon required (NCR) paper.
- Coated papers (erasable bond)
- Multiple-part forms or documents
- Preprinted papers that require a *registration* (the precise print location on the page) greater than ± 0.09 in., such as optical character recognition (OCR) forms

In some cases, you can adjust registration with your software application to successfully print on these forms.

- Preprinted papers with chemicals that may contaminate the printer
- Preprinted papers that can be affected by the temperature in the printer fuser
- Rough-edged or curled papers
- Synthetic papers
- Thermal papers



Printing

Paper handling

Maintenance

Troubleshooting

Administration

Index

- Less than 60 g/m² (16 lb) recycled paper
- Recycled papers containing more than 25% post-consumer waste that do not meet DIN 19 309

Choosing preprinted forms and letterhead

Use the following guidelines when selecting preprinted forms and letterhead paper for the printer:

- Use grain long papers for best results.
- Use only forms and letterhead printed using an offset lithographic or engraved printing process.
- Choose papers that absorb ink, but do not bleed.
- Avoid papers with rough or heavily textured surfaces.

Use papers printed with heat-resistant inks designed for use in xerographic copiers. The ink must withstand temperatures of 205°C (401°F) for non-MICR applications, and 225°C (437°F) for MICR applications, without melting or releasing hazardous emissions. Use inks that are not affected by the resin in the toner. Inks that are oxidation-set or oil-based should meet these requirements. Latex inks might not meet these requirements. If you are in doubt, contact your paper supplier.



Printing

Paper handling

Maintenance

Troubleshooting

Administration

Index

Choosing prepunched paper

Prepunched paper brands can differ in the number and placement of holes and in manufacturing techniques.

Use the following guidelines when selecting and using prepunched paper:

- Test paper from several manufacturers before ordering and using large quantities of pre-punched paper.
- Paper should be punched at the paper manufacturer and not drilled into paper already packaged in a ream. Drilled paper can cause paper jams when multiple sheets feed through the printer.
- Prepunched paper can include more paper dust than standard paper. Your printer may require more frequent cleaning and feed reliability may not be as good as that of standard paper.
- Weight guidelines for prepunched paper are the same as for non punched paper.



Printing

Paper handling

Maintenance

Troubleshooting

Administration

Index

Choosing paper

Proper paper loading helps prevent paper jams and ensures trouble-free printing.

To help avoid paper jams or poor print quality:

- *Always* use new, undamaged paper.
- Before loading paper, you need to know the recommended print side of the paper you're using. This information is usually indicated on the paper package.
- *Do not* use paper that you have cut or trimmed yourself.
- *Do not* mix paper sizes, weights, or types in the same paper source; mixing results in paper jams.
- *Do not* use coated papers.
- *Do not* forget to change the Paper Size setting when you use a source that does not support auto size sensing.
- *Do not* remove paper trays while a job is printing or **Busy** is displayed.
- Make sure the Paper Type, Paper Texture, and Paper Weight settings are correct. (See **Paper Menu** for detailed information about these settings.)
- Make sure the paper is properly loaded in the paper source.



Printing

Paper handling

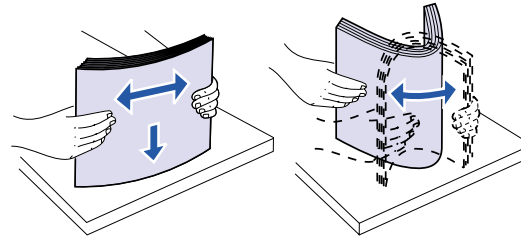
Maintenance

Troubleshooting

Administration

Index

- Flex paper back and forth. Do not fold or crease the paper. Straighten the edges on a level surface.



Choosing envelopes

When printing on envelopes:

- To achieve the best possible print quality, use only high-quality envelopes that are designed for use in laser printers.
- Use only new, undamaged envelopes.
- Load only one size of envelope at a time in the envelope feeder.
- Make sure the glue is not exposed.
- A combination of high humidity (over 60%) and the high printing temperatures may seal the envelopes.



Printing

Paper handling

Maintenance

Troubleshooting

Administration

Index

- Be sure to select Env Feeder or MP Feeder as the paper source in the **Paper Menu** and set the correct envelope size.

The laser printing process heats envelopes to a temperature of 205°C (401°F). Use only envelopes that are able to withstand these temperatures without sealing, excessive curling, wrinkling, or releasing hazardous emissions. If you have any doubts about the envelopes you are considering using, check with the envelope supplier.

For best performance, use envelopes made from 75 g/m² (20 lb bond) paper. You can use up to 105 g/m² (28 lb bond) weight for the multipurpose feeder or 105 g/m² (28 lb bond) weight for the envelope feeder as long as the cotton content is 25% or less. Envelopes with 100% cotton content must not exceed 90 g/m² (24 lb bond) weight.

To minimize jams, do *not* use envelopes that:

- Have excessive curl or twist
- Are stuck together or damaged in any way
- Contain windows, holes, perforations, cutouts, or embossing
- Use metal clasps, string ties, or metal folding bars
- Have an interlocking design
- Have postage stamps attached
- Have any exposed adhesive when the flap is in the sealed or closed position
- Have nicked edges or bent corners
- Have rough, cockle, or laid finishes



Printing

Paper handling

Maintenance

Troubleshooting

Administration

Index

Choosing labels

The printer can print on many labels designed for use with laser printers. These labels are supplied in letter size and A4 size sheets.

When printing on labels:

- Be sure to select Labels in the Paper Type menu item in the Paper Menu. (See **Paper Type** for detailed information about these settings.)
- *Do not* load labels together with paper or transparencies in the same paper tray; mixing print materials can cause feeding problems.
- *Do not* load partial sheets with areas exposed by missing labels; this can cause labels to peel off during printing, jam, and contaminate your printer and your print cartridge with adhesive. It can also void your printer and cartridge warranties.
- Avoid using labels that may release hazardous emissions when heated.

Note: Labels are one of the most difficult print materials for laser printers. Your printer requires a special fuser cleaner for label applications in order to optimize feed reliability. See **Ordering supplies** for information on obtaining a label fuser cleaner.



Printing

Paper handling

Maintenance

Troubleshooting

Administration

Index

After continuously printing approximately 10,000 page sides of labels (or each time you replace the print cartridge), complete the following steps to maintain printer feeding reliability:

- 1 Print five sheets of paper.
- 2 Wait approximately five seconds.
- 3 Print five more sheets of paper.

For detailed information on label printing, characteristics, and design, refer to the *Card Stock & Label Guide*, available on the Lexmark Web site at www.lexmark.com.

Choosing card stock

Card stock is single-ply and has many properties. The orientation of paper fibers, moisture content, thickness, and texture can all affect printing on card stock. See **Print material specifications** for information on the preferred weight for the grain direction of print materials.

When printing on card stock:

- Be sure to select Card Stock in the Paper Type menu item in the Paper Menu. (See **Paper Type** for detailed information about these settings.)
- Be aware that preprinting, perforation, and creasing can significantly affect the print quality and cause paper handling or jamming problems.



Printing

Paper handling

Maintenance

Troubleshooting

Administration

Index

- Avoid using card stock that may release hazardous emissions when heated.

After printing approximately 10,000 page sides of card stock (or each time you replace the print cartridge), complete the following steps to maintain printer feeding reliability:

- 1 Print five sheets of paper.
- 2 Wait approximately five seconds.
- 3 Print five more sheets of paper.

For more information, refer to the *Card Stock & Label Guide*, available on the Lexmark Web site at www.lexmark.com.

Choosing transparencies

The printer can print directly on transparencies designed for use in laser printers. Print quality and durability depend on the transparency used. Always print samples on the transparencies you are considering before buying large quantities.

The Paper Type setting should be set to Transparency to help prevent jams. (See **Paper Type** for detailed information about this setting.) Check with the manufacturer or vendor to determine whether your transparencies are compatible with laser printers that heat transparencies to 212°C (414°F). Use only transparencies that are able to withstand these temperatures without melting, discoloring, offsetting, or releasing hazardous emissions. For



Printing

Paper handling

Maintenance

Troubleshooting

Administration

Index

detailed information, refer to the *Card Stock & Label Guide*, which is available on the Lexmark Web site at www.lexmark.com.

Transparencies can be fed automatically from the multipurpose feeder and all standard and optional trays, except the 2000-sheet drawer, for all printer models. See **Print material specifications** for information about transparency compatibility with output options.

Be careful when you handle transparencies. Fingerprints on the surface of the transparency cause poor print quality. ▲

