

KEY CONCEPTS

Printing is more than reproducing words and images on paper. It is the physical experience itself – holding the piece, feeling the paper, the interplay of ink and paper – that printing is concerned with. As such, paper – the vehicle of the message, represents a substantial cost item in a printed job. Understanding paper and picking the right sheet for your job can make or break your job.*

Papers are defined by grade and basis weight. Understanding these two concepts is the key to specifying the right paper.

GRADES OF PAPER

There are seven basic grades (or types) of commercial printing papers:

- **BOND OR WRITING**
Usually used for letterheads, business forms and copier uses.
- **BOOK**
The most commonly used coated and uncoated papers for printing.
- **TEXT**
High-quality sheets in a variety of surfaces and colors.
- **COVER**
Used when greater bulk is required such as book covers, postcards or inserts. Available in a wide variety of surfaces and colors.
- **TAG, BRISTOL, AND INDEX**
Smooth surface papers mostly uncoated, except for bristols. Uses include displays, file folders and tickets.

Within each grade there are other distinctions, based on brightness, opacity, and fiber content. For instance, there are matte, premium, and ultra gloss finishes to coated paper. In uncoated book, there is #1 Offset, #3 Offset, Opaque, and Lightweight. Text papers are distinguished by finishes like smooth/velum, felt/embossed, laid, and linen.

BASIS WEIGHT

Getting more specific, people identify papers in terms of their basis weights. Since coated papers are more compressed (calendered), you can't necessarily keep the same weight when you switch grades. For instance you may go from a 60# uncoated to a 70# coated sheet to keep the same thickness. That's why papers are usually referred to by weight and grade.

What is basis weight, exactly? It is the weight of 500 sheets of paper cut to a basis size. So, 500 sheets of 25" x 38", 60# offset weigh 60 lbs. The basis size for bond is 17" x 22"; for text, offset, and coated 25" x 38"; and for cover 20" x 26". That's why two similar sheets of different grades may have very different basis weights, for instance, 24# bond and 50# offset. Different grades of paper and their weights:

- **BOND**
Usually 16# for forms, 20# for copying, and 24# for stationery.
- **TEXT**
Ranges in weight from 60# to 100#, but the most common weights are 70# or 80#.
- **OFFSET**
Usually a 50# to 70# stock.

- **COATED BOOK**
Generally goes from 30# to 70# for web, 60# to 110# for sheetfed.
- **COVER**
Comes in 60#, 65#, 80#, or 100# weights.

RECYCLED PAPERS

Our national waste disposal challenge has led to the increasing use of recycled papers. Paper companies have answered increasing demand with offerings in all paper grades. While recycled sheets still command a premium over virgin stock, they are more widely available than in previous years.

At this time there are still differences in definitions associated with recycled papers, and concerned buyers need to consult the EPA (Environmental Protection Agency) guidelines, State of California and Federal definitions, and paper companies' literature to make informed judgments.

DIGITAL PAPERS

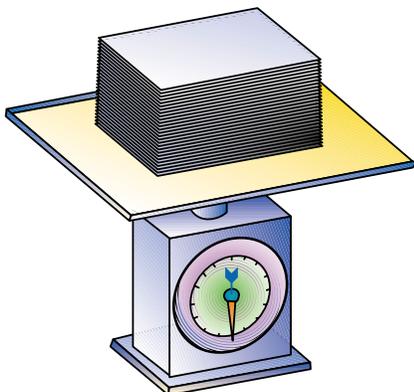
High-speed laser printing, in black and white or full color, lays toner on a substrate. Whether the output equipment is a digital copier, or sheetfed or web digital press, the process requires papers that will stand up to the heat employed in the fusing process in these machines. In the case of inkjet output, compatible papers are also required.

Today, paper mills are developing full lines that work for these processes as well as offset lithography so that designers can coordinate campaigns that encompass everything from large-format to short-run personalized print to long offset runs. Be sure that the paper you specify is right for the process that will produce your job.

**NOTE: Typically letterheads will be imprinted using laser imaging or run through copiers. It is important that you, as the buyer, tell the printer how you intend to use the printed piece. Do not assume that all papers can be used for all processes. Paper merchants will be able to advise whether the paper you selected is compatible for your intended uses.*

The same caveats apply to inks. Inks containing certain waxes and some other ingredients will soften as a result of the heat generated in a laser printer or copying machine. Again, let the printer know how your printed piece will be used.

500 SHEETS OF 20" x 26"
80# COVER PAPER



500 SHEETS OF 25" x 38"
80# BOOK PAPER

