Quick Guide to Paper Weight, Density & Type

[From Vistaprint website: https://www.vistaprint.com/hub/paper-weight-chart]

The difference between paper weight and thickness

Paper weight and paper thickness both measure the same thing: paper density. However, paper weight and thickness are not exactly the same. Paper thickness is measured with a ruler (or more technically, a caliper) whereas paper weight is measured on a scale.

Generally, it stands to reason that the thicker paper is, the heavier it will be, which is why many print providers simplify their advertised paper density with a single measurement. The difference is most pronounced between different kinds of paper, referred to as paper stocks. For example, cotton paper stock can be much thicker but not as heavy as cardstock.

The different types of paper stocks

Paper stock can be divided into two broad densities, light and heavy. The basic difference between these is that light paper stocks can be folded easily whereas heavy paper stocks require scoring to fold. Each of these are further subdivided into two categories based on their function.

Light paper stocks

- **Writing paper:** Common notebook and printer paper, for informal use
- **Text paper:** Commercial printing paper used for business materials or book pages

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Heavy paper stocks

- **Cover stock:** Thick paper, often coated, used for premium business materials and booklet binding
- **Cardstock:** Thick paper, often uncoated, used for postcards and business cards

How paper thickness and weight are measured

Paper thickness and weight are measured through different systems, which is why print providers will sometimes include multiple measurements on the same print product. While both measurements are valid, light paper stocks are traditionally measured in weight, whereas heavy paper stocks are measured in thickness.

Paper weight measurements

Pounds (lbs or #) is the measurement for paper weight used primarily in the United States, based on the US customary system. The weight of a single "ream" of paper (about 500 sheets) determines the numeric value, which is why a single 20 lb paper does not literally weigh 20 lbs. Because the size of a ream can vary between paper variants, 20 lb paper may not be as thick as 20 lb paper of a different grade.

Tip: When shopping for paper measured in pounds, take into account the type of paper since actual weight will vary based on the ream size. Use a paper weight conversion chart to find the gsm value for a more standardized measurement.

Grams Per Square Meter (gsm or g/m²) is the international measurement for paper weight based on the metric system. The weight of a 1×1 meter sheet of paper corresponds to the numeric value.

Paper thickness measurement

Points (pt) is the standard measurement for paper thickness. 1pt equates to 1/1000 inches thick. Caliper, or mil, is the same measurement, but it is written as 0.001 inches instead of 1pt.

[From Quill - https://www.quill.com/content/index/paper-buying-guide/paper-weight/]

Paper comes in a variety of weights, sizes, and textures that enable all manner of office and creative print jobs. While variety is what makes paper so functional and versatile, it's also part of what makes paper so misunderstood. Let's clear up a few things about the definitions and potential uses of different paper weights.

There are three primary methods to distinguish the weight of paper: U.S. basis weight, metric weight (aka grammage), and points or mils. Here's how these different measurements compare:

Paper Weight Chart

Type of paper	Available weights	Common uses
Bond paper	16, 20, 24, 28, 32, and 36 pounds	• Office copiers, printers, letterhead, and stationery • Lighter-weight bond paper for faxes, printing emails, tracing, and use in high-speed copiers • Mid-weight bond paper for reports, presentations, double-sided printing, legal documents, and proposals • Heavier-weight bond paper for double-sided printing, presentations, signs, fliers, contracts, and resumes
Book paper	30 to 115 pounds	Print books, booklets, catalogs, magazine publications, and posters

Cover paper	60 to 120 pounds	Business cards, door hangers, menus, invitations, postcards, rack cards, report covers, self-mailers, and sketching
Index paper	90, 110, and 140 pounds	Index cards, postcards, tabs and dividers, manila folders, and sketchbooks
Tag paper	50, 60, 70, 80, and 100 pounds	Retail signage, price tags, table tents, file folders, door hangers, direct mail postcards, menus, posters, and time cards
Text paper	50, 60, 70, 80, and 100 pounds	Commercial printing operations for brochures, letterhead print jobs, stationery, internal memos, and thesis papers

Of course, the numbers don't tell the whole story. In order to truly understand paper weight, we need to know how these measurements are obtained.

The U.S. basis weight method represents a measurement of the weight of 500 sheets of a paper size in its uncut form. For example, an uncut sheet of bond paper is 17 x 22 inches before it's cut to letter size. If 500 sheets of the paper in its 17 x 22 form weigh 20 pounds, then the paper is labeled “20 lb” after it's cut to letter size. As you can imagine, these measurements can be difficult to understand for several reasons: First, higher values don't necessarily correspond to heavier paper. Second, there is no standard size for the uncut paper, which can make it hard to compare different weights. Third, two papers may share the same basis weight but have markedly different characteristics. Because of the potential for confusion, most reams of paper list a metric measurement along with the U.S. basis weight.

The metric weight method is much more straightforward: It's represented as the weight of a sheet of paper cut to a 1 x 1 meter square and written out as grams per square meter (GSM). Because the size of the weighed paper is always the same, this provides a more clear-cut comparison between different paper weights.

Then there's the points or mils method, which is arguably the simplest: It involves using a caliper to weigh the exact thickness of a given piece of paper. These measurements are usually written out in thousandths of an inch. The thicker the paper, the higher the paper weight.

The Many Uses of Different Paper Weights

Even though it's the most confusing, the U.S. basis weight defines the paper types familiar to most Americans. These include bond, book, cover, index, tag, and text. Each of these types can encompass a variety of weights and is best suited for particular uses. Here's a basic overview.

- **Bond paper (16, 20, 24, 28, 32, and 36 pounds)**: Also known as writing paper, this is the type of paper weight for printer paper and copier paper. In addition to everyday printing, it's most commonly used for letterhead and stationery. Lighter-weight bond paper is ideal for faxes,

printing emails, tracing, and use in high-speed copiers. Mid-weight bond paper is highly versatile and works well for reports, presentations, double-sided printing, legal documents, and proposals. Heavier-weight bond paper also works well for double-sided printing and presentations as well as signs, fliers, contracts, and resumes.

- **Book paper (30 to 115 pounds)**: This category includes coated and uncoated papers of varying thicknesses. Book paper is commonly used to print books, booklets, catalogs, magazine publications, and posters.
- **Cover paper (60 to 120 pounds)**: Commonly referred to as cardstock, cover paper is thick and stiff (although as you can see by the pound range, this thickness can vary substantially). It is frequently used for business cards, door hangers, menus, invitations, postcards, rack cards, report covers, self-mailers, sketching, and so on.
- **Index paper (90, 110, and 140 pounds)**: As the name suggests, this stiff paper is most commonly used for index cards. It's also frequently used for postcards, tabs and dividers, manila folders, and sketchbooks.
- **Tag paper (100 to 200 pounds)**: Highly durable and fairly stiff, tag paper is used for retail signage, price tags, table tents, file folders, door hangers, direct mail postcards, menus, posters, and time cards.
- **Text paper (50, 60, 70, 80, and 100 pounds):** : This type of paper is usually an upgrade in quality over book paper and is most commonly used in commercial printing operations. Uses for text paper may include brochures, letterhead print jobs, stationery, internal memos, and thesis papers.

An Art Printmaking Paper Guide can be found at: https://proactivecreative.com/best-paper-for-art-prints/