Thickness is a crucial paper issue…
Confused About Paper Caliper, Points and PPI?

Last month, we warned our readers about the perils of unsolicited paper substitution.

We also discussed the importance of paper PPI (pages per inch) ratings.

Help Wanted

Based upon readers' responses, this topic needs further amplification.

PPI, which is based on the caliper of the paper stock selected, doesn't mean much when you're producing a 16-page saddle bound catalog.

It makes a great difference when printing 1,000-page books such as we do regularly at Copresco.

Depending on the paper used, actual book thickness could vary as much as $1/4$" or more. And that affects the width of the spine for binding.

Myth Busters

Paper weight isn't the determining factor in book thickness. Caliper—the thickness of paper measured in thousandths of an inch *(points* or *mils)*— is what counts.

PPI Formula

Thickness is measured in Pages Per Inch (PPI).

PPI is calculated by this formula:

$$2 \div caliper$$

If math isn't your strong suit, check out one of the links in our internet box.

For Example

Cougar Opaque is a well-known premium grade book paper. The caliper for a 60# smooth sheet is 4.6, while vellum is a thicker 5.2. That's an 11.5 % increase.

You can see what two minor variations for the same paper type can mean in the final book thickness.

Here are other paper properties that directly affect the printing of your publications, books and manuals.

Opacity

Opacity is the amount of show-through in paper. Opacity is very important in book printing because it affects how much the back side of a page shows through to the front, and how one page shows through to another.

The cheapest and least effective way to reduce showthrough is to increase paper thickness, usually by increasing the weight.

Not a Good Choice

If a 50# paper is too translucent, moving to a 60# will ever so slightly reduce the showthrough. However, it will also increase the weight and thickness of the book; usually not desirable characteristics.

A better way to increase opacity is to use an opaque book paper.

Brightness

Brightness is the ability of paper to reflect light. Bleaching the paper pulp is a way to achieve brighter paper.

Clever marketing has equated higher brightness with better quality, but this isn't necessarily so.

Best for Lengthy Books

Long books fare better on a more natural off-white shade of paper because they offer less glare and are easier on the eyes.

Technical manuals work well on high-brightness paper that provides a better contrast for illustrations, photos and footnotes.

Whiteness

Whiteness refers to how neutral the color of the paper is. The trend toward greater brightness has led to the addition of more fluorescent dyes to paper, which is cheaper than the bleaching process.

Too Yellow

Many "white" papers used to have a decidedly yellow cast. Playing with the shade may fool the eye regarding brightness, but it can also play havoc with accurate color printing.

Our Advice

If you are presently using premium papers for your books and manuals, let us offer recommendations for cost saving without compromising quality.
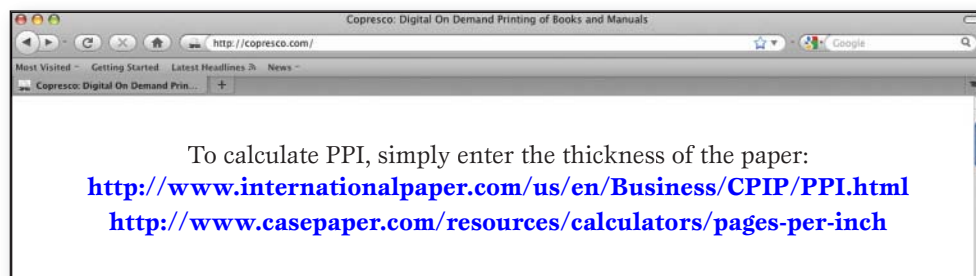
If you're still using lower-grade commodity papers, now may be the time to reconsider upgrading your look.

You may be surprised at how little the extra quality costs.

Still Need Help?

If you're still confused about paper or any aspect of digital printing, tell us what you want to accomplish, and we'll work out the details for you. Just give us a call.

http://www.copresco.com
(630) 690-2000 • Fax (630) 690-8182

A parishioner died, and in his will he provided that his pet parrot be left with the preacher of his church. The clergyman quickly became fond of the bird but was embarrassed by its appalling vulgar vocabulary. He shared the problem with

a friend who said, "I have a female parrot who does nothing all day but pray. Why not bring yours over and see if my bird's good example might reform him?" The preacher decided it was worth a try, and the next day he arrived with his parrot under his arm. His bird took one look at the woman's parrot and squawked, "Hey, Gorgeous! C'mon over here and let me ruffle your feathers!" The lady parrot looked up to Heaven and flapped her wings. "My prayers are answered!"

☀   ☀   ☀

"Americans will put up with anything, provided it doesn't block traffic."—Dan Rather

☀   ☀   ☀

A truck loaded with copies of *Roget's Thesaurus* spun out of control and overturned on the highway. The local newspaper reported that onlookers were "surprised, astonished, stunned, bewildered, amazed, startled, astounded and overwhelmed."

A sea captain had earned a fine reputation over the years safely guiding merchant ships all over the world. However; there was one thing different about him: every morning he would open a small safe, pull out a piece of paper, look at it for a minute, then lock it back up. There was much gossip and speculation about the letter's contents. Was it a treasure map? A letter from a long lost love? On the day the captain died, the first mate naturally became responsible for his belongings. The entire crew followed him to the captain's quarters, and a hush fell over the crowded room as the officer opened the safe, retrieved the note and read it aloud: "Port = left; starboard = right."

☀   ☀   ☀

Q: What is the highlight of a cannibal wedding?

A: Toasting the happy couple.

☀   ☀   ☀

Often when I am up late at night reading a good book, I stop and thank my teacher. That is, until she got an unlisted number.

☀   ☀   ☀

Q: Why don't politicians play hide and seek?
A: No one will look for them.

A commercial traveler was passing through a small town when he came upon a huge funeral procession. "Who died?" he asked a nearby local. "I'm not sure," replied the native, "but I believe it's the fellow in the coffin."

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Archaeologists Will Date Any Old Thing

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A man admiring babies in the maternity ward paused at one particularly cute infant. "Hmm, I wonder how old you are?" To his surprise the baby answered, "I'm two days old, sir," "Good Heavens!" the man sputtered. "What's your name?" "Stephen Johnson," the baby replied cordially. "Where did you come from?" The baby matter-of-factly explained the miracle of birth. "Wow," the man gasped, "how do you know all this?" "Dear sir," the baby said, "I wasn't born yesterday."