Do you have critical color-matching requirements on your order?
Don't trust a PDF proof. Get a printed proof!

PDF proofs are great timesavers for proofreading content, position, general page layout, and **relative** color only. But they are only an approximation of what your book will look like. The only foolproof way to see what your book will actually look like is to get a printed proof. Here are just a few reasons why.

Monitor vs. Printed piece

It is impossible for any printer to exactly emulate a computer monitor. The printed piece will be a slightly duller version of your monitor, and it won't show the very subtle differences in shades of a color. The most obvious problem with PDF proofs not exactly matching the printed piece is that your monitor uses "additive color" and is generated from light projecting out from the monitor. The printed piece uses "subtractive color" and room light is reflected off of the paper.

Monitor calibration

Calibrating a monitor is not an exact science. No two monitors are the same. They reproduce colors differently. And with flat panel monitors, colors can change signifantly on the same monitor by simply adjusting the viewing angle.

RGB vs. CMYK

Monitors use the RGB color space (Red/Green/Blue), and printing uses the CMYK color space (Cyan/Magenta/Yellow/Black). There can be significant color shifts when going from one color space to another. Converting a file from RGB to CMYK can cause some significant color shifts, but some of those color shifts won't even be visible on your monitor, because you're now trying to view a CMYK file on an RGB device.

Continuous tone vs. grayscale dots

Your monitor displays continuous tone images. Each pixel on your monitor can hold a specific color, and forms seamlessly to its neighboring pixels. A printed piece, however, breaks down photos into tiny dots. These dots are all printed with the same color. The only way they can vary the color shade is to make the size of the dots larger or smaller. This is very effective in reproducing a whole rainbow of colors, but it tends to blur any very subtle color differences.

Dot Gain

Contributing to the blurring of very subtle color differences is the concept of Dot Gain. Monitors do not have any dot gain whatsoever. The printed piece, however, puts ink down on paper in varying dot sizes. Depending on the paper's surface, the ink will spread out, which is called dot gain. Light colors may not be noticeably effected (10% Black may swell to 11%), but darker colors can change significantly (70% Black may swell to 85% or more).

Ink pigments

There are many different pigments that are added to ink to give it its color. Some ink pigments look different depending on what light you use to view them. Blues may look more accurate under natural lighting (sunlight), but if viewed under flourescent lighting, they take on a purple hue.

Slight variations on press

There can be slight variations from one press run to another and even throughout a single press run.

Questions?

Give us a call, 1-800-231-0521.