

Compared to conventional...

Does Digital Printing Pass the Test of Time?

Thanks to Mike Olish of Graphics Plus for posing this interesting question.

Q. How permanent is digital printing, compared to conventional?

A. First, we must point out that the term "digital printing" is used loosely to apply to just about any type of printing in which the image originates as a digital file and is printed directly, without any intermediary such as plate or die.

Laser Tops the List

The two best-known digital print processes are inkjet and laser. Speaking in broad, general terms, most commercial digital color presses in use today are laser/toner based including those currently employed by Copresco. Typical products are books, catalogs, brochures and mailings.

Most "large-format" digital printing, such as signs, posters and wraps, are inkjet, as are most photo printers. Direct-to-plate workflow used by commercial offset printers usually employs inkjet for proofing. Copresco does not use inkjet printers.

More Things to Consider

Most in-depth studies of longterm permanence have focused on the inkjet process and on photo prints.

More research definitely needs to be done on permanence of output from commercial digital presses.

Comparisons are difficult because of the lack of standards. There are no ISO standards for permanence of digital print and none in process.

Major Improvements

Digital inks/toners have improved vastly over the short time that digital printing has been in existence. Digital printing from years past is much less permanent than digital printing produced today.

This level of improvement can be expected to continue. So, like the stock

market, past performance is no predictor of future outcome.

Your permanence mileage may vary because the image you print is part of the equation. Use the following thoughts as starting points.

How Well Copresco Fares

Q. How permanent is Copresco's digital printing compared to offset?

A. Pigment-based ink is generally more permanent than dye-based ink. Inkjet inks are traditionally dye based.

Both offset inks and laser toners are pigment based so laser digital printing, such as Copresco employs, is roughly comparable to traditional offset printing in permanence.

What About the Others?

Q. How do you compare with other digital printing providers?

A. The Canon C7000VP Image Press used by Copresco employs newer toner technology, which speaks well for permanence. Many other digital press models in use today use older toner formulations.

Paper Is the Key

There are three factors to permanence: ink, substrate and environment.

The factor most unique to each digital press is ink, but substrate, usually paper, is even more important.

For example, most printing produced in the mid-20th century will not with-

stand the test of time. This is the fault of the high acid content of papers, not the offset or letterpress printing processes then in use.

Environmental Factors

Environment refers to outside factors acting on the printed piece. The most destructive factor is light.

The good news is: If your project is a book or manual, it will be closed when not in use and, therefore protected from light.

An environmental problem somewhat unique to laser/toner imaging is heat. Ever leave a three-ring binder in a hot car, only to find the first page stuck to the inside of the vinyl binder?

The answer to this, of course, is to avoid extreme heat, which is in some way destructive to all image forms.

That Wraps It Up

In conclusion, it is reasonable to say that if offset lithography yields acceptable permanence for a given project, then digital laser printing will do as well.

So when your book, manual or publication must deliver tomorrow, but last for the ages, call the company that has the technical knowledge and skills to meet all of your needs.

Call Copresco.

<http://www.copresco.com>
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Links to serious research about image permanence. Primary focus of all is on inkjet, but include laser-toner process, environmental and general information.

<http://www.imagepermanencainstitute.org>

<http://www.wilhelm-research.com>

<http://www.lumierephoto.com>



Digital On-Demand Printing

262 Commonwealth Drive
Carol Stream, IL 60188

Address Correction Requested

My New Year's celebrating made me feel like the Jolly Green Giant. I started



off "Ho, ho, ho," and ended up green.

For 2010, I'm going on the Bachelor's Diet. That's where you only eat half of everything you cook because the other half is stuck to the pan.

The trouble with jogging is that the ice falls out of your glass.

"Well, well," the doctor told his patient. "It seems that your weight is perfect. It just happens that you are eleven feet too short."

I had to punish my kids. I caught them playing "doctor" in the backyard—and they were using my best golf clubs.

"The similarities between my father and I are different."—Dale Berra, son of Yogi

My neighbor is a real pessimist. He carries a card with him that says, "In Case of Accident, I'm Not Surprised."

Despondent after missing a last-minute field goal in a heartbreaking Super Bowl defeat, the losing kicker attempted suicide. His shot missed, wide to the left.

"He'll scream from the 60th row of the bleachers that you missed a marginal call in the center of the interior line and then won't be able to find his car in the parking lot." —NFL referee Jim Tunney, on the typical fan

An elderly woman was taking her first airplane ride and she wasn't very happy about it. She found herself sitting next to a clergyman, and that made her feel a little bit more comfortable. But shortly after takeoff, the plane went



through some serious turbulence, and she grew pale with panic. Finally, as much from fear as anger, she barked, "You're a religious person—why aren't you doing something about this?" "Sorry I can't help you, ma'am," he replied. "I'm in sales, not management."

I don't want to talk bad about my college football team, but if the meek really do inherit the earth, these guys are all going to be land barons.

A New Year's resolution is something that goes in one Year and out the other.

After spending his whole life in the country, a middle-aged farmer was forced to sell his land and take a corporate job. For his first trip to the big city he brought along his wife and young son. At the hotel, a small, empty room with automatic sliding doors intrigued him. He watched as an elderly woman pushed a button, entered the room and turned around as the doors closed. The numbers on the wall above counted from 1 to 10, then back from 10 to 1. Then he was startled to see an attractive young woman walk out of the room. "Son," he said quietly, "go fetch your ma."

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