

Mastering Mounting



by
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New Products, New Trends 2004

Where do new products end and new trends begin? New products are emerging daily in every industry, and with the digital revolution upon us, the framing industry has been more impacted by new products than ever before. The days of simple custom picture framing of a poster print or photograph are no more. Behind us are the trends of attempting to dry mount everything non-collectible that arrives through our front door. Even the so-called disposable image or open edition poster may have been produced by digital means making it susceptible to moisture and heat damage...

but then again, maybe not. So as we welcome 2004, let us look further into the products that shape the technical aspects of picture framing and examine what trends are emerging from them.

ISO Meetings

As mentioned in my October 2003 col-

umn, the International Standards Organization (ISO) is attempting to set standards for acceptable tolerances for products through scientific research and test results. There are two ISO meetings held annually to discuss and

compare these round robin test results. In 2003 they were held during June in San Diego and December in Washington, DC. As the ISO attempts to establish a set of internationally accepted standards for products they continue to unearth new reactions and intolerances previously unpredicted, which slows the process down.

We are getting very close to the release of standards for Adhesives, and Digital Imagery, and as soon as this information becomes available for public announcement, I will report here on tolerances, reactions, and results. It is an ongoing process that will never come to a definitive end, for new products and improve-

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ments are being released constantly. So once these standards are voted on, passed and become available, the ISO Digital Committee TG-3 will no doubt embark on yet another new issue, with new testing. Perhaps it will even be in relation to the issues of adhesive yellowing.

Adhesive Yellowing

There is a new report of a paper reaction to a dry mount adhesive that is discoloring resin coated (RC) photos by turning them yellow/green. This was reported with black-and-white RC and is suspected of color also. The interesting fact is that it is the white pigment layer of the photo (not the actual image) is turning color. Therefore, it is discoloring into the border (see Figure 1). Also, it is only occurring where the adhesive comes in direct contact to the photo. This reported yellowing appears to be a tissue chemical reaction to something in the image and in turn discoloring the white layer. This problem is currently thought to be a quality control issue rather than a problem with the base product, since the yellowing of the image has not been able to be reproduced in the lab using the same tissues.

Adhesive yellowing has long been a topic of study in concerned circles.

Nancy Reinhold published a report in 1991 entitled "An Investigation of Commercially Available Dry Mount Tissues," in which numerous tissues including Seal ColorMount, MT5, ArchivalMount Plus, and Fusion 4000 Plus were evaluated for: fade and stain detectors as specified in ANSI IT9.2-1988 Photo Activity Test; a modified peel test; and accelerated dark aging test to assess discoloration and yellowing of tissues.

Though Reinhold concluded there was little evidence to suggest mounting black-and-white gelatin photos would be harmful, she did find there were significant differences in the dark-aging yellowing between the four Seal products (currently known as Bienfang) themselves, with ArchivalMount Plus yellowing the most followed distantly by ColorMount and the other two. (It should be noted there may have been formula modifications in these products since the 1991 testing that may have impacted current products.)

Monochromatic Inks

In our everchanging rush of digital advancement, inkjet suppliers have begun to promote special ink sets specifically for black and white photo imagery that reproduce a monochromatic photo print technique. Epson America has introduced three seven-color printers that use cyan, light cyan, magenta, light magenta, yellow, black, and light black (CcMmYKk) inksets. They include the desktop Stylus Photo 2200 and wide format Stylus Pro 7600 and 9600 printers, which produce lower densities with more subtle shadows allowing for great black-and-white and more monochromatic neutrals.

Luminos Photo Corp. has released monochrome inksets that look like traditional photo toning techniques including sepia and selenium toners and both warm and cool neutrals for black and white images.

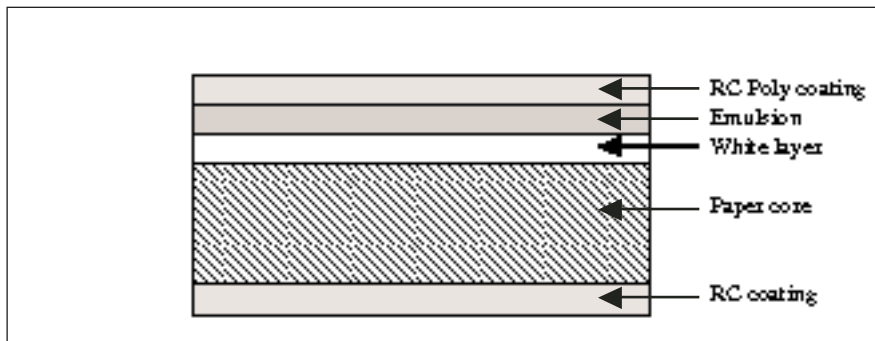


Figure 1: Seen here is a cross-section showing the components of a traditional RC photograph. There is a new report of a paper reaction to a dry mount adhesive that is discoloring RC photos by turning them yellow/green. This was reported with black-and-white RC and is suspected of color also.

Their five ink sets can be intermixed to create traditional toner looks or black-and-white silver halide paper hues. The monotone colors of brown tone, grey green neutrals, and selenium cool grays are all stunning... but are still digital inkjet. The target market for the new inks are portrait and wedding photos and fine art photography making it something we need to be aware of in the custom framing world.

Being that these are all usable with Epson printers involving piezo technology my guess is they are heat tolerant... but it has not been proven and the combination of ink and paper can vary their tolerances. They look very high end, fine art and will require preservation framing.

Backlit Displays

I discussed face mounting a few months back but did not go into lightboxes much at the time with digital prints. Large format imagery and techniques continue to gain visibility in the marketplace, with more and more advertising turning digital. Inkjet, electrostatic, or traditional photographic prints are all being used on transparent or translucent films to create large lightbox displays.

These films need to be face mounted (the face of the print to the back of the substrate) to a clear acrylic sheet for display. They are often seen in fast food restaurants, airports, and shopping centers and might be a potential source of untapped income if you have the resources and equipment to mount them. A roller laminator (see "Mounting Issues 2003," *PFM*, December 2003) will be needed for this process, and a roll of optically clear pressure-sensitive adhesive, such as Seal Brands Optimount, or Optimount UV available through SealGraphics Americas.

I would not normally have mentioned this particular type of mounting in this column, but in recent months, I have seen more and more questions about these types of projects on our industry online forums. This means that the digital revolution has brought film transparencies as a crossover into the custom framing circle and we need to know how to handle them.

Hahnemühle and Hewlett-Packard

A few months ago I discussed Hahnemühle paper and its association with the development of Hunt ClearMount adhesive and Epson printers using Epson pigment inks. Hahnemühle has been at it again, this time working with Hewlett-Packard and their wide format printing of high end LE photo images. The HP Designjet 5500 printer uses the new HP Photo Rag paper by Hahnemühle as well as an HP Watercolor paper for printing of fine art and fine art photography.

The HP Designjet 5500 is a large format printer that produces museum quality photo, paper, ink combinations some of which are currently on display at the Smithsonian Museum of Natural History in Washington, DC in a worldwide traveling exhibition. This is additional proof of the acceptance of digital

imagery in the fine art and museum world, and yet another example of how we must embrace this technology and the upscale quality that is emerging into our industry.

But framers be careful. To my knowledge HP has yet to convert their printers to pigment inks, and they remain a bubble jet process, unlike Epson's pigment ink, piezo technology. If these images are limited editions they will be handled preservationally and heat intolerance is not an issue. If they are open edition images then we must be aware of potential light and heat sensitivities. I have yet to test any of these specific images under standard mount-

ing conditions or practices, but will report more when I have been able to locate samples.

The Kodak 8500 Digital Photo Printer

During recent online research of suggested manufacturer framing tips, I ran across another new printer. The Kodak Professional 8500 Digital Photo Printer is a thermal printing machine touted as the "...professional's alternative to inkjet technology." The printer appears to be a relatively modest investment, but allows for an in-house dye sublimation (dye diffusion) process. An 8"x10" image prints in 75 seconds, of continuous tone photo quality at a competitive output price of \$2.00. Most high quality inkjet run around \$1.80.

The compact nature of this 27-pound, 17"x28" printer that is powered by 120 volts makes it a portable unit that could end up at weddings and social events for on the spot photo printing. Framers

*Face mounting images,
often used for the
backlit displays
seen at airports
and other venues,
are a potential source
of income for
custom framers.*

need to realize these are also likely to cross their threshold. Dye sublimation images have shown a high tolerance for heat and react like traditional RC images when framing, but what about thermal dye transfer?

In The New Year

So the trends for the beginning of this year involve new products and modified technologies. New combinations, new substrates, new inks, new test results... so what's my resolution for the New Year? I will attempt to keep up with digital technology for our industry. My prediction is that it will be an ongoing challenge! Happy New Year! ■

(Resources for this article)

Epson sales literature, "Framing Tips for Photographic Papers"

Also see websites: www.epson.com; and www.luminos.com

for additional inks information and www.sealbrands.com for face mounting.

Kodak Professional 8500 Digital Photo Printer sales sheet and website, February 2003.

And a special thank you to Nielsen Bainbridge for its ongoing support of my participation in ISO Working Group 5; TG-2 and TG-3 committees.

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