Mounting Challenging Items

Thermographic papers, synthetic materials, and more can be tricky.

Challenging items are the ones that need an alternative mounting solution because of possible heat intolerance, emotional value, overall size, or weight. I recently taught a class called Mastering Mounting: Challenging Items as part of The National Conference. At the beginning of each class, students are asked if they have questions for a challenging project waiting for them at home, and they always do. There were numerous queries about thermographic papers, vellum and parchment, synthetic materials like Evolon and Yupo, heavy textiles/rugs, and high-gloss photos. The moral there being that even when something like a thermographic paper has been around for decades, it can still present a challenge today. Let's look at how we can overcome such challenges.

Thermographics

Thermographic is a term for heat-generated items that comes from the Greek *therme*, meaning heat, and *graphikos*, relating to the art of printing. Thermal printing is a digital process that activates coated thermochromic paper by heating when the paper passes over a thermal print head. The coating turns black in the areas where it is heated, producing an image that is heat-sensitive at some temperatures. Thus, heat applied during mounting could activate the entire sheet, turning it black at higher temperatures. To verify heat sensitivity, gently touch the side edge of a suspected thermographic item with the side of a warm tacking iron; if it is, the narrow edge will darken. These items be should be pressure-sensitive mounted or hinged.

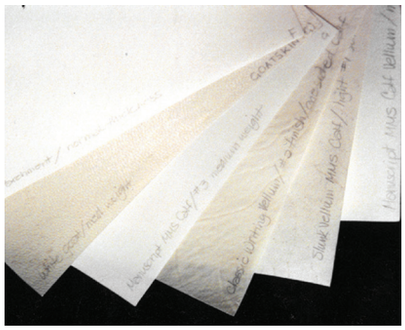
For digitals, there are two options: high tack pressure-sensitive board or film, and low 130F temperature HA board.

Thermal printing can also refer to raised or puffed lettering sometimes seen on invitations and business cards. This is very heat-sensitive and only pressure-sensitive or preservation mounting is suggested. Once the text is melted and flattened by heat, it is gone.

Thermal Transfer

Thermal printing and thermal-transfer printing are not the same thing. Thermal-transfer printing is a digital printing method in which a wax ink is melted and applied to the receptor substrate so it stays glued to the material.

Chris A. Paschke, owner of Designs Ink in Tehachapi, CA, is a professional picture framer with over four decades of experience. She is an artist, a National Conference educator, has authored numerous magazine series, including The Essence of Design, Design Concepts, and Digital Directions for PFM, and has four self-published books on mounting. She currently writes the Mastering Mounting column for PFM and is a contributing writer to The Artist's Magazine, The Pastel Journal, and Watercolor Artist Magazine. She was honored with the PPFA Award of Distinction for Leadership 2008, the Vivian Kistler Recognition for Innovation Award 2010, and the PMA Distinguished Service Award 2012.



A piece of sheepskin that has been dampened and air-dried. This shows damage resulting from applying both moisture and heat to the parchment at the same time.

Thermal transfer is preferred over direct thermal printing on surfaces that are heat-sensitive, and has been embraced as a popular process for printing identification labels and high-quality barcodes. Because it is a wax medium, it is very heat-sensitive; these are best hinged or pressure-sensitive material.

Vellum, Parchment

There are always questions about vellum (animal-skin vellum, not translucent tracing paper) and parchment (sheepskin). Though the use of single-sheet animal skins in the United States appears to be more limited to university diplomas as parchment, in other parts of the world it is extensively used for everything from wedding invitations to royal proclamations.

No two skins are truly alike. That is part of their natural beauty and the basis for framing them true to their nature. The 1852 sheepskin parchment ledger sheet shown here has two issues: a gentle curl and a wax seal that would be heat-sensitive. Fully mounting parchment or vellum using any process restricts it from the natural expansion and contraction it craves through variations in temperature and relative humidity, and even after flattening it may return to its previous state. Preservationally, a skin document or diploma should be hinged or conservationally mounted, perhaps by creating a sink mount. If a document is only slightly buckled, it is the nature of the beast and is truly part of the overall effect.

Synthetic Materials

Twenty-first century materials have proved frustrating for framers. Among them are synthetic papers, which include various grades of plastics: polyvinyl chloride (PVC), polyethylene, polypropylene, and polyester/nylon. Tyvek, Yupo, Evolon, and TerraSkin are all eco-friendly products that have been developed for use in printing design, marketing, labeling, and packaging, but have also been embraced by artists as a painting and mixed media surface. Yupo—distributed by Legion Paper—is currently the most popular and most frequently encountered by framers. It is available in various text and cover weights—both translucent and opaque—with 74 white, 144 white, and 104 translucent being favored by artists for watercolor, gouache, alcohol ink, and acrylic.

Yupo artists often favor a contemporary look they are referring to as "no-frame" mounting and will most often bring in completed paintings for adhering to a rigid substrate. As a synthetic art substrate, Yupo does not absorb liquids, and all water-based mediums will fully wash off. Alcohol ink and acrylic are permanent mediums that do not wash off; therefore, the art could be framed with no glazing as many artists are currently requesting. A number of online Yupo instructors suggest using acrylic gel paste as an adhesive, but manufacturers of gel adhesive are not advocates of this mounting method, and it should be avoided by framers. Remember, these paintings are originals, and we are ethically not allowed to permanently mount them.

Only high-tack, pressure-sensitive, self-adhesive products will effectively bond synthetic layers for dependable, long-term fusion. In an attempt to maintain surface smoothness, Yupo artists are requesting Gatorboard, Dibond, or Sintra as a substrate. Like Yupo, Dibond and Sintra do not absorb, so only PSA is an option with Coda Cold-Mount, InstaMount, and Neschen Gudy having all tested well with synthetic materials. KoolTack InstaMount is a commercial pressure-sensitive board that has tested well with Tyvek and Yupo.

This 1852 sheepskin parchment ledger sheet has two issues: a gentle curl and a wax seal that would be heat sensitive.

The same is true for HA boards. MountCor and MountCor Canvas bond at 130°F and love Yupo, Tyvek, and polyester encapsulates. Omega/M&M Heat-Activated Mount (HAM) bonds at 170°F and loves synthetic papers. Others may not have the tear strength required for a proper bond.

Digitals

For decades, digitals have been the number-one framer problem, but that is only because printers, inks, and substrates continue to evolve and the rules and guidelines continue to change with new technologies. The term "digital print" really means the medium, so to safely mount a digital, you must also know the printer type, ink type (dye, pigmented, wax), and substrate.

For digitals, there are two options: high-tack, pressure-sensitive board or film, and low-temperature HA board. Ask questions; determine if the item or art is non-replaceable or an original, and then determine what the best choice is. Use of a vacuum press, dry mount system, or roller laminator is up to you and your adhesive selection, but educating the customer to possible options and problems is a good place to begin.

Thermographic ticket is darkened by hot taking iron. Tested at 150F-160Ffor 1 minute the ticket is fine, but not at 170F for 15 seconds. Low 130F would tolerate any time with no damage.

High-Gloss Photos

There is always a lot of discussion on forums and in classes about the sensitivities of digital images and high-gloss photos as though they are the same discussion, which they are not. Digitals are an ongoing source of testing to determine the safest mounting method, and that is also true for high-gloss photos. Traditional analog photos seem to have a higher heat tolerance than many of their digital successors, so extra care needs to be taken both when handling and mounting these items.

Original Cibachromes (Ilfochrome Classics) come from slide film and are printed to a 100% poly-

Left to right: translucent Yupo, opaque Yupo with matte Krylon fixative, and TerraSkin.

Solid ink is a thermal-transfer process where was pigment is melted and applied to a receptive substrate. These should not be subjected to heat as they can melt, use only P-S or preservation mount techniques.

ester film substrate, which is a glass-like surface very susceptible to damage from fingerprints and scratching. Static mounting to a piece of acrylic sheeting became a wonderful, non-invasive preservation method of mounting since it was 100% reversible and allowed the glass-like surface to remain unblemished.

Its replacement is the digitally-produced FujiFlex, which is surface-sensitive, but also damages with warm breath and is thinner and therefore very prone to surface mountboard orange peel texture. It also static mounts as a Cibachrome. Note that only 100% polyester film substrates will statically mount to acrylic; high-gloss paper prints, analog or digital, will not.

Disasters Versus Mistakes

Webster's Dictionary defines "disaster" as "a calamitous event causing great damage or hardship; a tragedy or catastrophe." While a true mounting disaster probably cannot be repaired, a mounting mistake—an error caused by lack of skill, attention, knowledge, or judgment—may be corrected.

Challenging items like the ones discussed here are unlikely to become victims of mounting disasters because a high level of attention is given to them from the start. Greater care is taken during the mounting and framing process to ensure the correct ahdesives and techniques are implemented to prevent a catastrophe from ever occurring. PFM

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83 South Street, Unit 307, Freehold, NJ 07728
Call 732-536-5160, **Fax** to 732-536-5761
Attn: PFM Editor
or **E-mail** to pfmeditor@hobbypub.com