

# Mastering Mounting



by  
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## *New Products, New Trends 2005*

Researching new trends is an ongoing project for me all year long. So here is my take on current directions, concepts, trends, and ideas in mounting for 2005. I also would like to address a few things that have come up on the industry Internet forums and via direct e-mail to me. Canvas imagery for outdoors? Archival dry mounting? Mounting of photos to aluminum? Okay, aluminum not be a new idea, but it is not a commonly used substrate in the typical frame shop.



Photo 1: Dibond Cut to Size—Full sheets of the aluminum composite Dibond may be cut with a small rechargeable 5 1/2" skill saw. There are cover sheets on either side: one clear plastic, the other heavy lined.

### **Composites**

Let's begin by looking at composites in general. The most familiar is a wood composite known as plywood. Multiple thin layers are trimmed from softwood logs to create veneers which in turn are stacked and glued together under high pressure to

create full sheets of plywood. Other familiar wood composites include masonite and medium density fiberboard (MDF). MDF is produced by converting wood chips into fibers that are soaked in liquid synthetic resins, which then are pressed together under heat and pressure. It is smooth, relatively consistent, and may be cut very straight. It is also available as an alkaline at 7.5-8.5 pH called Dukol EP-MDF (Australia). Currently most MDF board is being used in sheet form outside the United States.

Besides wood, there are also metal composites. Thin, lightweight, moisture-resistant sheets are produced that combine a center core of thermoplastic with thin outer layers of painted or anodized aluminum. Originally designed as an architectural product, metal composites have found a place in the sign industry. Alucobond® was the first metal composite, available in a variety of mil thicknesses and ranging in sheets up to 62"x196".

### **Alcan Dibond**

From the makers of Gator®, Fomecor®, Foam-X®, Sintra®, and the above mentioned Alucobond®, comes its second generation release... Dibond®. Dibond has many of the same features and advantages as Alucobond but at a lower price. It remains a lightweight, rigid, aluminum composite material sold dominantly into



the graphic display market. With the advent of wide format printing and roller laminators it seems framers are expanding their substrate demand for something much larger to accommodate those 90" photos that need to be mounted. Both are stable, weatherproof, lighter, and easier to cut than metal sheets of the same size. Dibond is made of two sheets of aluminum bonded to a thermoplastic core of polyethylene, pre-painted with a polyester finish as its receptive surface on both sides. It comes in 2mm, 3mm, and 4mm thicknesses, available in stock sizes 48"x96", 48"x120" and 60"x120".

Dibond has been dominantly used for wide format digital and electrostatic printing; photo mounting; and silk screening applications. It can be cut with a small hand skill saw; it produces particle dust, so wearing goggles is a must. The edges are smooth enough after cutting that they do not require sanding (see Photo 1). There are protective coverings on both sides like those found on acrylic sheeting that are removed when bonding.

## Mounting Photos to Aluminum

Over the past year I have received a number of inquiries about mounting photos onto aluminum. While these are admittedly designed and suggested by the manufacturer for cold mounting techniques, I, of course, tested both hot and cold methods for bonding photos (see Photo 2). Crescent PerfectMount film and Neschen Gudy 870 were both selected as cold pressure-sensitive adhesives, and, to date, both mounted smoothly and look great.

I also tested 8"x10" photos with Bienfang Color-Mount tissue in a Seal Mechanical 210M-X press, and Drytac TriMount tissue in a Drytac/Hot Press vacuum press. In both the dry mount samples the adhesive was pre-mounted to the back of the photo first, then bonded to the Dibond substrate. Again, both worked. The surface is smooth and the only orange peel detected originated from the photo itself.

The problems that I foresee might be that of trapped air during dry mounting and the fact that there

is little for the adhesive to hold to since the surface is smooth and non-absorbent. It is, however, the photo application that caught my eye with this product, and I believe this could be the answer for the really large, long, wide format photos being produced as fine art.

## Weatherprint: Art for Outdoors

Say what? So is this something framers need to know about? It helps to cover all your bases so you can carry on informed conversations with patrons. So after guessing that WeatherPrint was a wide format, solvent-based ink, gallery-stretched canvas suitable for use outdoors, I went to the company's website and got the rest of the story. These are indeed familiar open edition art images from very familiar companies in our industry including

Cheri Blum images from Wild Apple Graphics.

It turns out to be an aluminum composite substrate with the art printed directly to it, and has a limited five-year warranty. It's an interesting concept. It has been specifically designed for outdoor use—patios, pools, entries—and uses UV protected inks and all stainless steel and weather-retardant hanging hardware.

## A Product Revisited

And then there's Artcare Restore. In August 2004, this product was announced and it was on everyone's tongue. It's not very often that the industry sees such a claim as a heat-activated mounting board that is reversible, not just removable... but archivally reversible.

And by now you have probably heard and read the positive comments from me, both in the ad campaign and in this column in the October 2004 issue. Did I sell out? No, you know I don't do that. After teaching in the industry for almost 20 years and writing this column for *PFM* since 1991, I have always told you what I believe to be the whole truth... at the time.

On the industry Internet forums, comments and questions have been bantered about: "Is this true?" "Can this be possible?" "Can I now safely dry mount all of the images I always had to hinge before?" These are all valid questions. I know it sounds skeptical as, up



Photo 2: Mounting Tests—Test mountings included film RC photo, RC Cibachrome, Fuji Autochrome, Kodak Dye Sublimation, and Kodak black-and-white gloss images. (Upper right Crescent PerfectMount, center right Gudy 870.)



until now, we mounting experts (particularly me) have touted no such thing as being "reversible" once mounted with an adhesive, other than starch.

This new product is indeed a totally new concept... hence the name Artcare Restore. It is called Artcare as part of the manufacturer's product line, but Restore because all adhesive residue appears to be totally reversible and dusts off after removal from the substrate, having "restored" the art to its original state. The jury will be out on this for years as we see actual aging results over time, but during accelerated testing it looks as though we need to be open to this very new concept. It has passed all the tests it has been subjected to, most recently passing the Photo Activity Test (PAT), which is highly regarded in the conservation world.

There has never been anything like this product, hence no comparison in our industry. Never before has there been a dry mount board or adhesive that could be mounted, then reversed back without absorption. Just because it has never been done before does not mean it is impossible today. Think about airplanes, computers, e-mail, or the plastic horseshoes I put on my endurance horse. Times change, and so does technology. I am the biggest skeptic of them all, and yet I am always looking out for framers... and it looks to me like this product works.

### *Bonding Comparison*

That said, you need to be aware of its differences. Let's look at heat-activated boards in general first. Heat-activated boards come from the familiar board manufacturers and dry mounting companies with variable temperature and time ratios including: Bienfang Single Step (180°F for 2 to 4 minutes), Single Step Plus (150°F for 15 seconds to 3 minutes), HartAct (1 to 2 minutes), Savage Nucor Heat Activated (190°F for 1 minute), Heat-Activated Fome-Cor (170°F for 2 to 3 minutes), and Bainbridge SpeedMount (150°F for 15 seconds to 1 minute).

Originally designed as the time/cost-effective alternative to mount board and adhesive, these products changed our thinking about mounting. But as you can see from the differences in suggested temperatures, plus taking into account the type of mounting press being

used (mechanical versus vacuum) they all vary slightly. All of the above products are considered invasive. Some are permanent mounting, some are removable, none are reversible.

SpeedMount does not hold as aggressively as other heat-activated boards, but it does hold. It is consistently the lowest suggested time/temperature (150°F for 15 seconds) across the board for all items it will mount. But that has been a trade-off for the aggressiveness of the bond. Tear strength has never been the issue with SpeedMount, but rather its long-term holding, non-invasive nature.

The idea is for the adhesive to hold the mount in place, smoothly and entirely but perhaps not aggressively. Lower temperatures make them safe for heat-sensitive inks at 150°F, but not good for fabric. Comparative products including Bienfang Single Step Plus bond at the same lower temperature and hold fast to tear strength tests, but also suggest higher temperatures for photographs in order to achieve that same bond.

*It helps to cover all  
your bases so you  
can carry on  
informed  
conversations with  
patrons.*

### **New Concepts, New Expectations**

Perhaps, tear strength is not what it should all be about. Post-it notes have no tear strength whatsoever, but boy do they ever fill a void in note taking! There are many variables at play. Low bonding temperatures and quick dwell times allow heat-activated boards to be very gentle for heat-sensitive inkjet or laser images, but unfortunately not digital canvas.

It has been discussed on the industry Internet forums that the low 150°F temperatures do not hold items well, and that 160°F may be better. Also extended times have been suggested by users. In fact, because of the additional paper thickness, I needed 160°F for one minute when mounting my original collage that was shown here in *PFM*, October 2004. New product, new concept, new rules. Do not tug at the corners of the newly Restore bonded art to test the bond; you may remove it. It needs to cool under a weight as does any removable adhesive.

Both SpeedMount and Restore activate and hold in place for as long the framer or customer wishes; just do not pull on it. Even when the edges appear not to be mounted well, once the mat is placed over the



mount it will hold the image in place. This is a similar concept to that of static mounting a 100% polyester Cibachrome. (See *PFM* February 1997, *Mastering Mounting*, "Ilfochrome Static Mounts".)

In static mounting the Ilfochrome Classic photo is held in place as long as its edges are overlapped by a window mat and

the photo is not lifted at the edges, thus breaking the static that is holding it in place.

### Reversibility

Since it is thermoplastic adhesive that activates under heat, it reactivates when warm. Hence a framed item sitting in a hot car might release the bond. Or on a poorly

insulated, outside, southern exposure wall in Phoenix, Palm Springs, or Tehachapi, might the image bubble? Maybe, but maybe not if not subjected to manual separation.

Once removed from the board and cooled, the adhesive will dust off the back of the image that had been mounted. Some porous papers such as newsprint may appear to have some tiny fiber absorption under black light and a little separation, but the bulk of items are smoothly removed with no hint of adhesive remaining. Select your projects wisely.

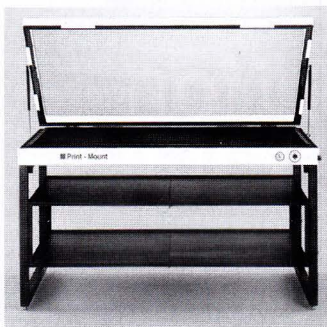
### New Year, New Ideas

So, here we are in another new year. It's 2005 already; hard to believe. Seems just last December we were all sweating out the Y2K thing. In any event the world of new technologies seems to be continuing to set the trends for the new year. Composite substrates, mounting on aluminum, art for the patio, and reversible dry mounting... who'd have thought? Happy New Year... and hope to see many of you in Las Vegas this month! ■

Chris A. Paschke, CPE, GCF, Mounting Editor, owns Designs Ink in Tehachapi, CA, featuring commercial custom framing, fine art/graphic design, and industry consulting. Specializing in mounting, matting, design creativity, and fine art, she works with industry leaders and has taught for the National Conference. She has written two books on mounting: "The Mounting and Laminating Handbook" (now in its second edition) and "Creative Mounting, Wrapping, and Laminating." She can be contacted at [www.designsinkart.com](http://www.designsinkart.com).

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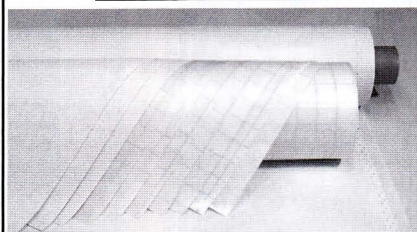
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