

Matting and Framing Quick Reference Guide

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This handout is provided as a follow-up to the demo we did on matting and framing. Opinions expressed are my own (although gathered from several sources). References are not endorsements or recommendations of any particular product or company.

Archival vs. non-archival

I won't go into it in much detail here, but archival processing and storage of photographic prints is a very important topic if you want your prints to last. This is especially true if you are selling fine art images. You owe it to your customer to provide the most stable, longest lasting image possible. Black and white prints can last 100 years or more if properly washed initially, and properly stored afterward. Color prints will fade over time, some as fast as a year or two, some may last 50 to 75 years or more. Three main enemies of photographs are light, humidity, and acid. Prints will fade much faster in direct light than in a dark box. High humidity (especially combined with high temperatures) can result in fungus or mildew growth. Acids in the storage box (use archival boxes, not the ones the paper came in originally) or in the mat board can also damage a print over time. Same for pollution. Non-archival materials are cheaper and can be used for brief competitions (such as within the club), but for portfolios, galleries, gifts, images for sale, etc., use archival materials throughout. Nuff said.

Why mat a photograph?

The mat will do two things. First, protection. In a box of images (say a portfolio), the mat will help keep the photograph from being scratched during transport (no direct contact with the image above). In a frame, a mat between the photo and glass will provide a dead air space that will prevent it from sticking to the glass, and will help prevent mildewing.

The second benefit is to enhance visual impact. The mat can make the presentation more "formal" looking. Avoid the gaudy pink/yellow/turquoise triple mat approach. The mat should support the image, not compete with it. A single, white mat is standard in galleries. Black is sometimes used, but is much less common. If you like fancy multicolored mats, and want to hang them in your home, go for it. If you are entering competitions or submitting entries for galleries, try to resist the urge.

Windows

There are three standard openings. The first is called a "floating" mat and does not come in contact with the print at all. Here a borderless print is attached to the backing board with some type of adhesive. This results in the backing board being visible in the space between the edge of the image and the interior dimensions of the top mat. Some people prefer this look. Some don't. You get to choose. One downside is if the corners start to peel up, there is nothing to hold them in place. This method won't work with "T" hinges or photo corners, see below.

The other two types are versions of "overlay" mats. On prints from negatives, you can center the image within a large white border and just mat to cover the edge of the paper. This leaves a nice white area to sign the image (with a signature you have practiced for weeks), put in the edition number (to make it look valuable) etc. Overmatting also eliminates the concern of the corners lifting up. The other type of overlay mat is where you actually mat just slightly into the image. One advantage here is there will be no distracting different shades of white. It is almost impossible to match the mat board "white" to photographic paper "white". It can also be the lazy man's solution to borders that are not quite square, prints which are miscentered, etc. but you didn't hear that from me.

There is no standard formula for the width of the borders. Generally, larger mats should have larger borders. Ranges from around 1-1/2" to 2" for 8 x 10s up to 4" or 5" for 24 x 30s are fairly common. Some people prefer even borders all the way around. Some prefer to weight the bottom about 15 to 20% more than the top for a more balanced looking package. Your choice.

Attaching to the back board

There are three basic ways to attach a photograph to the back mat: adhesives, "T" hinges, and photo corners.

Adhesives

Two basic camps here, dry mounting and "other". Properly applied adhesives offer the best appearance since the image is bonded flat to the backing board. This advantage can be even more pronounced with glossy prints. Disadvantages are it is typically not a reversible process and it may not be archival. Once the print is permanently attached to the backing board, if anything happens to the board, the image may be ruined (note: there are some adhesives that claim to be reversible. Don't know, they might be.)

Dry mounting requires owning or borrowing a dry mount press (club has one available, instructions for its use are in the darkroom notebook). Basically, a heat sensitive paper is trimmed to the outer dimensions of the print (or just slightly smaller), it is attached to the back of the print with a tacking iron, the print is centered on the backing board, and the tissue is tacked to the backing board. The whole assembly is then put in the dry mount press with a cover sheet and cured, then removed and cooled under a flat weight. This all happens after you have baked all of the moisture out of the print and mat board.

There are many possible places to damage a print in this process. Trust me. Cleanliness is mandatory. Centering is crucial. Release paper should be acid free and must be completely undamaged (or you will emboss your prints with some weird shape). Also, do not exceed 180°F to 200°F in the press or you risk ruining your prints, especially RC prints (too hot will damage the emulsion layer). Follow the instructions from the dry mount tissue manufacturer. It's best to practice with a few throw away prints before you mount your one and only prize winner you paid some outfit big money to print for you. Big advantage here if you print your own images.

The other adhesives generally use some type of spray-on or cold bonding method. The advantage is you don't need a dry mount press. One disadvantage is getting the air bubbles out can be tricky. Bigger disadvantage is most if not all of them are not archival. Expect damage to the print over time. There may be some newer ones out which claim to be archival, don't know. Best to ask the manufacturer what the pH level is, etc. Don't trust marketing terms. My advice, don't use spray-ons if you are looking for longevity in the prints.

"T" hinges

We briefly showed how to do "T" hinges in the demo. They are obviously much easier to apply. See any matting and framing book for pictures of how these are done if you are not familiar with them. This is a much more reversible process. If the back mat becomes damaged, you can carefully cut the tape away and attach the print to a new board. Make sure to use archival tape (linen, etc.), not masking tape, cellophane tape (or for the men reading this, duct tape). The print will hang freely, so over time it should stay relatively flat, but it will not be as flat as dry mounting. One exception, if you are shipping prints from a very humid climate (gee, where could that be?) to a very dry climate (such as Phoenix), dry mounted photographs may be a problem. The mat board and print may expand and contract at different rates, causing damage.

Photo corners

Option number three. Make sure they are archival. Main advantage is the print is completely free from the mat. If anything happens to the mat, the image can be easily transferred to another. Main disadvantage is the print will probably not be as flat as with the other two methods. Another advantage to hinging or using photo corners, is you can sign the back of the print and list pertinent information (date negative was produced, negative number, date printed, edition number, etc.). If you dry mount it, you may have to sign the mat board.

What kind of mat board to use?

First, dimensions. Mat board typically comes in thicknesses such as 2x, 4x, 6x, 8x, etc. This refers to the number of plies. 4x is pretty typical. If you are going straight into a frame, you might be able to save some money with a 2x top mat. Probably best to stay with a 4x back mat for stiffness. Standard size for a whole board is 32" by 40". You can buy it this way or precut. Some retail places will cut it for free or let you use their cutter for free. Some may charge a small fee. Mail order places will usually offer it in full

sheets or precut standard sizes (such as 11" x 14", 16" x 20", etc.) Precut may be cheaper to ship, and will save the grief of cutting full boards down to size. A 40" by 60" size is also available for your more manly projects.

There are three basic types of matboard. Composition, buffered rag, and non-buffered rag.

Composition board is made from wood pulp. It comes in many, many useless colors. Advantage is it is cheap, around \$4 to \$5 for a 32" x 40" sheet. OK to use for print night competitions, etc. Disadvantage: is acidic and hence not archival. It will fade over time, and will off-gas which can damage the image. Do not use for images for sale, galleries, etc. It will not be used in our print exhibition.

Rag board is made from 100% cotton or something similar. There is a Light Impressions sample pack in the darkroom cabinet if you would like to see some of the options available. It is also called "archival", "museum board", etc. Again, beware of the marketing folks. Some outfits will put an acid free layer on pulp board and call it "archival". Make sure you know what you are getting. Buffered contains calcium carbonate to neutralize the pH of the board. It is fine for all kinds of prints except Type C (prints from color negatives). Non-buffered does not contain calcium carbonate and is compatible with Type C prints. Rag board is more expensive, around \$10 for 32" x 40" sheet. It is available in fewer colors than composition board, and is harder to find. Non-buffered is available in even fewer colors, and is even harder to find. Easiest way to tell what you have is look at a cross section. If the top and back faces of the board are a different color than the core, it is composition board. If it is the same all the way through, it is probably some type of rag board.

Best way to cut?

If you are going to do a lot of mats, it may make sense to invest in your own mat cutter. Some people prefer the one made by Altos, ~\$100. Some like Logan, etc. Best way is to try several out before you buy. The club has one which you can use (I think it's a Bainbridge). We also have Altos's oval mat cutting system available to borrow. The one I used in the demo was a Logan model #401, the "Intermediate". I like it just fine. Figure around \$175 or so for that one, maybe less mail order.

If you are going to make very large mats (or cut many full sheets down to size), you might want a more substantial mat cutter. These get pricey pretty quickly, but you should get straighter cuts. In any case, change blades frequently. One blade per mat has been suggested by several people, especially for rag board.

Another option is to have them cut at a frame shop. This works OK too. Advantage is they will have an industrial size mat cutter which is larger and more stable. Should eliminate problems with non-straight cuts, especially on very large mats. Down side is it will cost more, but if you are making a large quantity of mats all the same size, they can do them pretty fast.

Framing

Two parts to this equation, the frame and the glass. For the do-it-yourself types, you can either buy ready-made or assemble-it-yourself frames and put the whole thing together. For the uninterested in doing-it-yourself types or independently wealthy, you can take it to a frame shop. Metal frames by Nielsen are quite popular for photography. Many different edge designs and colors are available. Black is standard. Charcoal grey is also popular. They come sold in pairs, two pairs make up a complete frame. This is what I used in the demo. Very easy to assemble, nice clean look to them. Figure \$15 to \$20 for a complete frame if you buy them at a local retail establishment, less than \$10 if you mail order them. For fancier looks, there are hundreds of different wooden frames available, some preassembled, some not. Up to you. Frame shops that know what they are doing will do a fine job. Ones that don't are a nightmare.

Two basic options on the glass... regular glass and Plexiglas. Advantage of regular glass is it is much more resistant to scratching. Single weight window glass works fine. Disadvantages are it is heavier which may be a consideration for very large prints. It is also much more brittle so it may break if dropped. Can be a real consideration for prints hung in public places, or where children (or people acting like children) are around. Also, it has a slightly greenish cast to it. Some color printers will intentionally print with a slight magenta cast to compensate for this. With black and white, you are stuck. Plexiglas does not have the greenish tint, but is much easier to scratch and is slightly more expensive. Figure on 1/8"

thickness (some places recommend 3/32"). Minor scratches can be removed with careful application of toothpaste. If you are going to ship framed prints anywhere, use Plexiglas.

Another option is to use the cover sheet of glass or Plexiglas but no frame. The package is held to the wall with four bent wire retainers. Quite popular in many galleries. Has a nice clean look to it. Also saves time and money.

Bottom line

The following is a rough price breakdown if you want to do your own framing. Prices are for an 11" x 14" photograph matted to 16" by 20". Does not include labor, the cost of the photograph, the mat cutter or using Plexiglas instead of glass. Also assumes everything goes right (don't have to recut mats you goofed up, deductible in the ER when you cut yourself, etc.)

Following is for mostly mail ordered components (in reasonable quantities):

Archival back mat:	\$2
Archival top mat:	\$2
Blade to cut top mat:	\$0.25
Dry mount tissue	\$1
Simple black frame	\$10
Glass	\$4

Total around \$20. Add \$2 to \$6 for plexiglass, depending where you buy it. Fancier metal frames can add \$5 to \$10 or more. Fancy wood frames can cost much more.

Some possible resources are listed below. They are merely options, not endorsements.

Mat board and frames

American Frame
www.americanframe.com
(800)537-0944

Bellevue Art and Frame
1024 116th NE Bellevue
(425)453-8959

Daniel Smith
4150 1st Ave S, Seattle
(206)223-9599

Light Impressions
<http://www.lightimpressionsdirect.com/>
web site has a nice summary of archival issues
800-828-6216

Seattle Art Supply
2108 Western Ave, Seattle
(206)625-0711

University Book Store
4326 Univ Wy NE, Seattle (+ other branches)
(206)634-3400

Utrecht Art Supply
1124 Pike, Seattle
(206)382-9696

Glass
Perkins Glass
1420 Broadway, Seattle
(206)322-4949

Plexiglas

Laird Plastics
650 S. Industrial Wy, Seattle
(206)623-4900

Comco Plastics, Inc.
20015 89th Ave S. Bldg. G, Kent
(206)575-1038 (Seattle number)
(253)872-3312 (Kent number)

Acrylic Concepts
17932 NE 65th
Redmond, WA
(425)881-3603

Taps Plastics
Bellevue, WA

Royal Glass
Seattle, WA