

PFM's Guide to

Basic Mounting

By Chris A Paschke, CPF, GCF

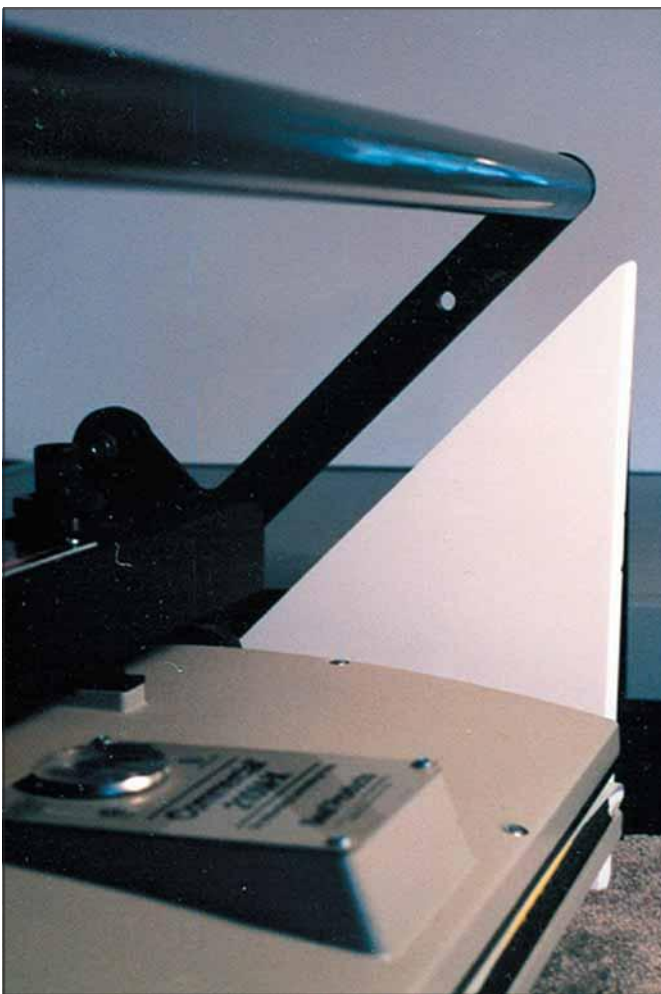


A Supplement to Picture Framing Magazine

PFM's Guide to Basic Mounting

By Chris A Paschke, CPF, GCF

A primer on the fundamental principles, including materials, types of mounting, procedures, mounting conditions, and how to avoid common pitfalls



The locking arm of a dry mount press should be set at 45 degrees to the table with all materials in the press at the closed position.

Mounting is the action of affixing a paper image, photograph, fabric, or object to a stiffer support backing. The art may be attached a number of ways from noninvasive preservation techniques—hinges, corner pockets, edge strips—to more invasive procedures utilizing wet, spray, pressure-sensitive, cold vacuum, heat mounting, or roller laminator methods.

Knowing when not to mount—fuse down—an item is equally as important as how to mount it. It is rarely a question of "Can it be safely mounted?" but rather, "Should it be mounted at all?" Traditionally, the list of what not to mount using invasive techniques includes signed limited editions, vellum, parchment, diplomas, documents with notations on the verso side, Ilfochrome Classics (Cibachromes), original art of any kind, heirlooms, and pretty much anything that cannot be replaced. Though these items may mount without harm or damage, any preservation method maintains they may be reversed to their original state.

Invasive vs. Noninvasive Mounting

Invasive mounting saturates the art during bonding and leaves adhesive residue once removed. Noninvasive mounting means the bonding technique remains totally reversible allowing the art to be brought back to its original state without any adhesive residue remaining upon removal. The mounting techniques covered in this sup-

plement cover the physical attachment of artwork to a substrate to flatten it and restrict it from bubbling, cockling, or warping. These should be considered permanent, invasive methods—not preservation methods.

Noninvasive Mounting Methods - Reversible

Natural Starch

- Hinges
- Kozo Backing

Cold Alternatives

- Corner Pockets
- Edge Strips
- Lacing
- Mylar Encapsulation
- Sink Mount
- Static Mount

HA Reversible Board

Invasive Mounting Methods - Permanent /Removable

HA Dry Mounting

HA Roller Laminator

Cold Mount

- Cold Roller Laminator
- Vacuum Frame
- Commercial PVA Wet Glue
- Pressure-Sensitive
- Spray Adhesive

Regardless of an adhesive's name, there are no archival—preservation—invasive mounting methods. Some drymount tissues have carrier sheets that have been buffered to lower their pH by the addition of calcium carbonate. They often mount at lower temperatures, are porous, removable, and have a neutral pH making them more delicate, but they do not meet preservation standards. Though most adhesives are stable and inert—making them incapable of combining with another element to create a new chemical reaction—it is the mounting technique rather than the adhesive that makes a mounting method non-preservation.

TTPM - The Four Elements of Mounting

Time, Temperature, Pressure, and Moisture (TTPM) are the four basic mounting elements from which all successful mountings are produced. All bond failures may be analyzed and often resolved by going back to the basics of these four elements and examining the technique used.

The basics of time, temperature, pressure, and moisture vary depending upon the mounting process, equipment, and adhesive, but the concepts remain consistent and are the best guidelines for the repetition of bond success.

Time

The element of Time is recognized in a variety of ways. Application time is taken into account with wet and spray adhesives as the period required to apply a uniform coat of adhesive to guarantee good adhesion. Tack time—also called open time—is the workable period allowing for



A lick 'n stick stamp will not stick to a wet envelope (right). All layers must be dry to bond (left).

print positioning as the solvent—water or chemical—evaporates in preparation for pressure and fusion occur. Open times vary depending on the product, so read all labels. Bond time is the period layers are kept under pressure to affix them together, also called cure time. When dry mounting, draw time, is the period when a vacuum system pulls all the air from within the machine to begin the bonding process. Dwell time occurs after pressure has been applied in the press to adequately heat all materials, activate adhesive, and create the bond.

Temperature

Temperature is the only element that lends itself more to dry mounting than the rest. All adhesives have manufacturer suggested temperatures to achieve best results. There is no formal standard, ideal temperature used in every heat mount situation, with dry mount adhesives ranging from 150 °F to 215 °F, however, the average temperature for dry mounting is 185 °F to 190 °F. With wet and spray mounting there will always be recommended storage and

room temperatures as designated on all bottles and cans. Temperature extremes of cold tend to stiffen and solidify flow, also encouraging glues to clump. Frigid temperatures restrict shipping of many wet glues due to freezing, and generally temperatures below 60 °F are undesirable for any mounting applications. Even pressure-sensitive adhesives react favorably to warmer storage and room temperatures, with more aggressive bonds occurring when P-S adhesives are warmer than cold.

Pressure

Pressure is the force that squeezes air from between the substrate, adhesive, and artwork then holds it while the bond is created. Whether wet, spray, or dry mounting, the practice of weighting needs to be applied in all cases. A piece of 1/4" plate glass is a perfect even and cool weight for mountings of all types. Both pre-adhesived pressure-sensitive boards and adhesive films such as PMA, Gudy 870, or PerfectMount all require the pres-



An open edition print mounted to 2-ply rag (left) warps after bonding, while a 4-ply board keeps the same size and weight print flat (right). The left cat image could be counter-mounted and would stay flat.



A traditional RC photo mounted to 2-ply rag (left) is warped. The same photo and 2-ply rag counter-mounted lies flat (right).

sure of a squeegee, rubber roller, or roller machine to activate the adhesive and create the initial bond which fully cures in 8-24 hours.

Both hot and cold vacuum presses are self-adjusting as the rubber diaphragm naturally conforms to the thickness of each individual substrate during the draw of the vacuum. Mechanical presses must be manually adjusted to 45 degrees for proper pressure based on the thickness of the substrate and art. Inadequate pressure might allow

air bubbles to remain within the center of a mounting, while too much pressure could create unsightly indentations in a foamboard during a multiple bite project. Average pressure in a vacuum press is 11-15 psi (pounds per square inch) while a properly adjusted mechanical press is 2 to 4 psi.

Moisture

Moisture is an element that also varies with the process used for mounting. All wet and spray adhesives contain water, so moisture is good. Any moisture that is present during dry mounting can become steam, and this moisture is bad. Try to store adhesives and substrates in the same environment to help equalize them, allowing for compatible bonding. When wet mounting, moisture is an integral part of the adhesive, and materials must be allowed to expand equally, so moisture is misted to dry paper while the wet glue is applied to the substrate. This expands the paper before mounting to match it to the substrate and helps eliminate paper buckling and excessive warping.

During dry mounting, all the materials used in the mounting process should begin, bond, and remain dry. Dry paper will not adhere to a substrate that contains water. All mounting materials used in a mechanical press require pre-drying to dry out the materials before the project is bonded. Absorbent brown Kraft paper makes an ideal pre-drying envelope when placed in a closed—not locked—mechanical press for 10-15 seconds. A vacuum press automatically dries out all layers as it sucks the air from between layers as it bonds. Begin each mounting day by running an empty press through one full, heated cycle to dry out all interior mounting materials to remove moisture that may have accumulated overnight.

Longevity, Permanence and Bond Failure

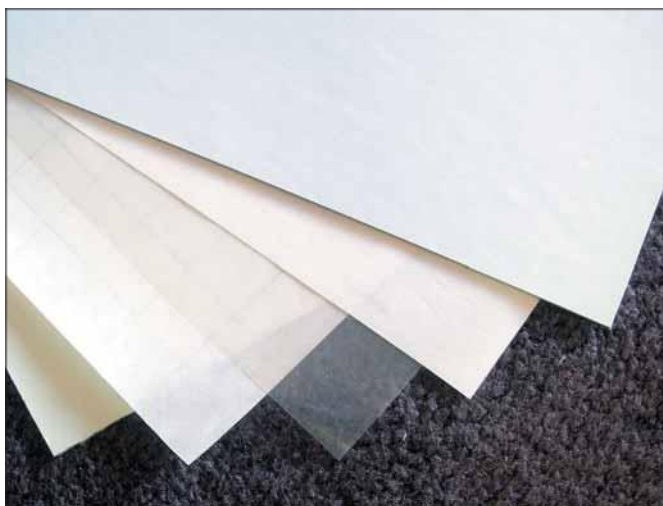
Preservation methods are known to have longevity and last the test of time, as with starch mounted Asian scrolls having lasted thousands of years. But longevity and permanence are two very different things. Permanence defines as bond strength after curing, then maintaining that strength for an undefined period. Mounting is the physical attachment of artwork to a substrate that will permanently flatten and prevent it from bubbling, cockling, or warping. Longevity is the actual length of time—or duration—of the life of the bond.

The most commonly asked mounting question

involves which method is most permanent. When the physical attachment between art and substrate ceases to hold, it is called bond failure. Incorrect techniques and the expansion and contraction of individual paper and substrate layers during normal humidity and temperature variations are the biggest causes for bond failure.

Substrates and Countermounting

Selecting the right board as a substrate is as important as selecting the correct adhesive and mounting procedure for any specific piece of artwork. It is important to be



Among the various release materials are, left to right, Bienfang single sided release paper; Drytac single sided release paper; Mylar release film; two sided release paper; Bienfang (commercial) release board.

consistent with material selection throughout an entire job. If acid-free mats are chosen, then acid-free mounting substrates and neutral pH adhesives should be used. An acid-free or inert adhesive on an acidic substrate still equates to potential acid burn. Almost any rigid surface may be used as a mounting substrate, including glass, foam, aluminum, composite, Masonite, or paper ply boards.

To best eliminate warping, the weight, thickness, and rigidity of the selected board should be adequate to accommodate the art being mounted. The following thicknesses are suggestions for standard mountings:

- Up to 8"x10" 4-ply matboard, x board, or equivalent
- 8"x10" to 16"x20" 1/8" foamboard, 2x board, or equivalent
- 16"x20" to 32"x40" 3/16" foamboard, 3x board, 1/4" Gatorfoam
- Over 32"x40" 1/2" foam, 1/2" Gatorboard, 1/2" Tycore, Masonite, composite, or equivalent

Additional rigidity of the substrate, such as heavy-duty foamboard or hardboard, is suggested for projects over 32"x40", especially when being mounted for non-framing, high humidity, temperature extremes, or outdoor signage.

If the selected substrate is too light in weight to support the layers being mounted, it will warp, even if proper TTPM steps are followed. The only way to compensate for the fiber expansion and tension on the surface of a mount board that has warped is to apply the same degree of tension to the back of the substrate. This is



Wet glues may be brushed or applied with a roller. The glue here was brushed on a black rag board in preparation for the dry application of brown linen.

called countermounting. By mounting a sheet the same size and weight to the back of the board using the same adhesive and technique, the surface tension will be the equal both front and back, reducing or eliminating the bow.

Release Materials

Release materials are designed to keep adhesives from contaminating mounting surfaces and, in turn, to keep adhesive residues from coming into contact with artwork. They protect both the heating platen in the top of the press and the pad or diaphragm in the bottom of the press. There are many types of silicone-coated papers, films, and commercial boards with varying degrees of nonstick capability. Release papers are coated with inherent release properties, such as Teflon or polyethylene, preventing adhesive absorption. Or they may be used as removable liners to protect pressure-sensitive or heat-activated adhesives until ready to use. They come in a variety

of sizes and are available as both one-sided and two-sided; some use bleached Kraft paper as a base. Translucent Mylar or polyester films are available for a smooth release sheet that can be seen through.

Indentations and creases are created in bottom release papers and films when mounting substrates are properly pushed down into a sponge pad of a mechanical press or the diaphragm sucks up around the substrate in a vacuum press. These are the natural result of pressure during the mounting process in a heat unit. Check daily, routinely wipe down release materials with an anti-static

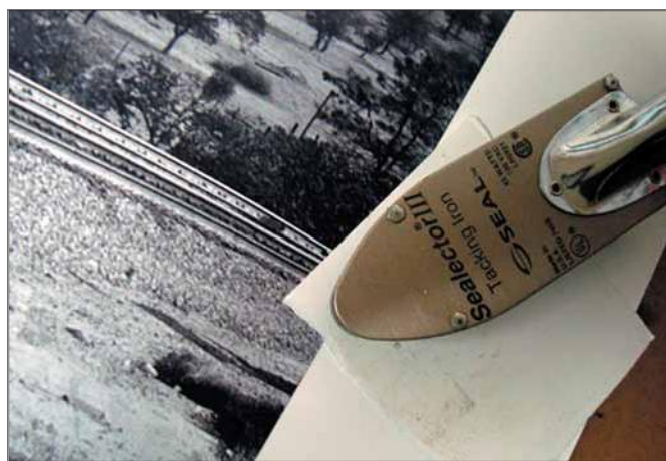


P-S adhesives come as pre-adhesived boards with a liner, as in this photo, or as films that can be used with your substrate of choice.

rag, and retire/replace used release materials every 50 working hours.

Adhesive Types

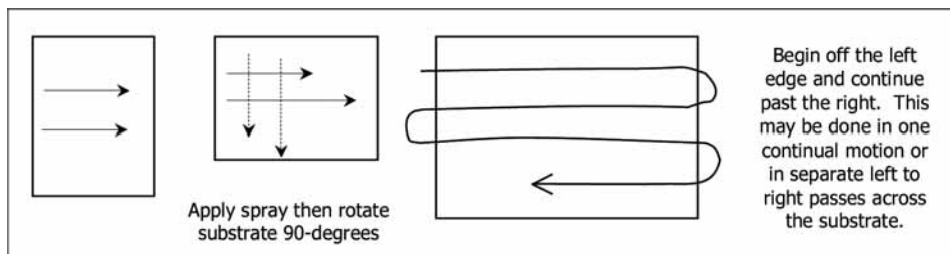
There are two main adhesive types: natural substances come from animal and vegetable sources, and synthetic substances are compounded from simple chemicals, many of which are polymers. Vegetable glues come from starches and dextrans extracted from corn, potatoes, rice, or wheat. Synthetic adhesives are divided into two categories: thermoplastic and thermosetting. Thermoplastic adhesives can be resoftened any number of times by reapplying heat, and they will again adhere and bond when cooled. They are considered removable. Natural adhesives are predominantly thermoplastic, the most widely used being polyvinyl acetate (PVA) or white glue. Thermosetting adhesives undergo an irreversible chemical change when they harden. Once hard, they do not melt or resoften when heated and are considered insoluble in common solvents. Thermosetting adhesives include epox-



Because of the sensitivity of today's digital images, make sure to tack at the outermost 1/4" so if there should be any surface damage to the coating it may be covered with the mat.

ies, polyesters, and urethanes like those used with fiberglass.

In framing, the adhesives used in mounting artwork include wet, spray, pressure-sensitive, and heat activated materials. The natural or synthetic base of an adhesive will determine its appropriateness for any given type of mounting. Some adapt best to mass production, where speed and permanence is desired; others allow for specialized attention during a slower mounting process.



Spray mounting is most effective when the adhesive is properly applied in one of these two spray patterns.

Solvents

Substances that break down or dissolve another substance are known as solvents. The most common solvent is water. Evaporating solvents are used in sprays, paints, varnishes, and plastic coatings to keep them liquid. Once the solvents evaporate after application, the liquid solution becomes a tough solid. Removable thermoplastic adhesives may be reactivated when placed back under heat, allowing the bond to soften for easier separation. However, adhesive residue remains soaked into both surfaces even when removed.

Permanent dry mount tissues require solvents for removal.

These are strong, hazardous chemicals that evaporate quickly when exposed to open air and readily dissolve most dry mount, spray, and pressure-sensitive adhesives. Common solvents include commercial adhesive release,

Bestine thinner, mineral spirits, naphtha (benzene, toluene, xylene), heptane, and acetone. Fumes are present when using solvents; use them only in well-ventilated areas. Chemically based solvents do not damage or dissolve water-based inks or adhesives, and aqueous-based solvents will not dissolve nor damage chemical-based items.

Wet Mounting

Wet glues include water-based adhesives of natural starch and polyvinyl acetate (PVA) that are thermoplastic. Removable Polyvinyl Acetate (PVA) is a water-soluble, neutral pH, white liquid that dries clear, stays flexible, and may be reactivated with heat. Wet glues are sold as thin bottled liquids that are applied to a substrate with a brush, roller, or airbrush and as commercial paste, which is best applied with a rubber roller. All wet glues require even pressure during the initial bond until glue is fully

cured. PVA (white glue) may be applied to a substrate, allowed to dry, and then reactivated with the application of heat. This is particularly good for sheer papers and silk wraps. For step-by-step standard wet mounting, see sidebar.

Spray Mounting

These air-drying adhesives are most often thermoplastic that convert to a solid state by evaporation of the solvent once applied to a substrate. Rubber or acrylic-based solvent adhesives are found both as PSAs and spray glues. Sprays are packaged in aerosol cans that require even application and sufficient pressure to create a good bond. They are also subject to the longevity vs. permanence issue. If a spray adhesive is properly applied and all TTPM elements are followed, the resulting bond will have 100 percent tear strength, which rips the bonded layers to get them apart. Unfortunately, the aggressive bond is weakened over time as the adhesive dries out,

and the permanence is sacrificed from natural expansion and contraction of bonded layers. For step-by-step standard spray mounting, see sidebar.



Print and adhesive are tacked to substrate and placed between release materials for bonding in a dry mount heat press.

Wet Mounting TTPM

TIME

Open time is the workable period allowed prior to set-up. Application time is that required to apply a uniform coat of adhesive.

Bond time is that required for total cure is 3 to 24 hours.

TEMPERATURE

Extremes of heat, humidity, or cold lessen permanency.

PRESSURE

Plate glass gives even weight and increases bonding.

MOISTURE

Too much moisture absorbs into the art and may create warping.

Vacuum frames help extract moisture, expediting bond.

Wet Mounting Application

- Roll a brayer across a glob of glue to even out adhesive.
- Apply adhesive to the substrate, not the art.
- Spread glue evenly over every square inch of substrate.
- Mist back of the print to expand fibers to match substrate.
- Align the print to the substrate across the top edge.
- Slide hand top to bottom, check alignment.
- Cover with sheet of clean Kraft paper,
- Rub from center to outer edges to eliminate air.
- Dry under weight for 4 to 24 hours.

Spray Mounting TTPM

TIME

Open time allows for solvent evaporation, 3 to 10 minutes. Bond time is the curing period for a permanent bond.

TEMPERATURE

Most manufacturers have a suggested temperature range.

PRESSURE

A vacuum frame is recommended for maximum pressure.

MOISTURE

Condition the art and substrate to the same environment.

Spray Mounting Application

- Shake can to mix then test spray to insure flow and clean application.
- Begin spraying off left and continue past right edge (diagram 1).
- then back across until fully coated overlapping wet bands of spray.
- Allow 3to10 minutes open time while solvents evaporate and adhesive becomes tacky.
- Position print, cover with Kraft paper and smooth from center to edges using flat of hand or soft roller.
- Lie flat under weight to cure or place in cold vacuum frame to expedite quicker bond.
- Invert can and clear nozzle of remaining spray after use.

Pressure-Sensitive Mounting

Pressure-sensitive adhesives—also known as PSA or P-S—are predominantly thermoplastic and require no moisture or heat to apply, but pressure is very important. P-S adhesives come as low, medium, and high tack in both repositionable and immediate bond. They are available as rolls, precut sheets, or premounted to various substrates. P-S boards come as X, 2X, 3X paper board thicknesses and 1/8" and 3/16" foamboard in both low and high tack, often with a coated white surface sheet that may or may not be buffered. The adhesive with a release liner backing is tacky to the touch, and the best results are derived from direct pressure of a roller press or squeegee applicator.

Low tack P-S boards are repositionable, making



Routine cleaning of press platens and wiping of all release materials, prints, and substrate will prevent indentations caused dirt within the press.

Pressure-Sensitive TTPM

TIME

Maximum bond achieved after curing 8 to 24 hours.

TEMPERATURE

The warmer the materials, the more aggressive the bond.

PRESSURE

A weight or vacuum frame should be used.

MOISTURE

Damp materials will not bond.

Pressure-Sensitive Application

- Cut to size.
- Place film adhesive on hard surface.
- Peel off liner or roll open to expose film.
- Position artwork and cover with liner or release paper.
- Rub with flat of hand or burnish from center to edges
- Place under weight until cured or run through rollers.

them a favorite in the industry. However, they lack the longevity of a true permanent bond. The most long-term permanent P-S film is high tack, which does not allow for repositioning. Once it has touched a smooth surface—particularly clay-coated foamboard—it is stuck. For step-by-step standard pressure-sensitive mounting, see sidebar.

Dry Mounting

There are two basic types of heated dry mount presses: mechanical and hot vacuum. One is not better than the other. They are just different, and selection of the right press to suit your needs varies in every case. The most obvious difference between basic equipment types involves the elements of TTPM. Mechanical presses were designed to control only the first two of these elements, while hot vacuum presses assist in controlling all four factors. There are pros and cons to both systems, so select a press based on your projected workload now and five years from now.

Use a heated tacking iron to temporarily hold art to

Dry Mounting TTPM

TIME

Draw time is the delay while air is sucked from within press. Dwell time is that required to activate and create the bond. Average vacuum press 4 min, mechanical press 1-2 min.

TEMPERATURE

Adhesives vary by manufacturer, averaging 175°F-190°F.

PRESSURE

The force that compresses air from between bonding layers. Mechanical press must be manually set to 45[∞] for 2-4 psi. Vacuum press automatically adjusts for varying thicknesses.

MOISTURE

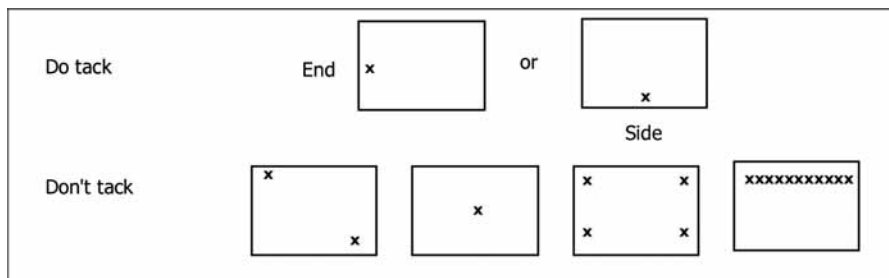
Steam is created at 225°F, predrying may be required. Predry all mechanical press mountings. Vacuum presses draw moisture out automatically.

Dry Mounting Application

- Preheat press to 185°F.
- Predry poster and substrate separately, 15 seconds in a Kraft paper envelope.
- Trim sheet adhesive slightly larger than print if it is to be matted.
- Position print and adhesive on substrate and tack in place (diagram 2).
- Assemble mounting package (diagram 3): Release paper, Poster, Adhesive, Substrate, Release paper
- Place package in press: 1-3 minutes mechanical, 3-5 minutes vacuum.
- Remove from press and cool under weight.

the substrate so items do not shift as the press is locked or vacuum drawn. Position the art with a sheet of adhesive beneath it onto the substrate. Cover the spot to be

will allow you to handle everyday tasks as well as greatly expand your design opportunities. For step-by-step standard dry mounting, see sidebar.



Dry mount adhesive sheets should be tacked with a tacking iron along one edge, as per the top row. Tacking should not be done as per the bottom row.

Heat Activated Adhesives

Dry mounting adhesives are easiest to understand when broken into their specific categories: bond, composition, porosity, and pH. By taking the time to analyze the various available tissues, you will be better prepared to select the proper adhesive to fit your needs. All heat activated adhesives may be placed into

tacked with a small piece of release paper—silicone side down—to protect the art. Using a small circular motion—the size of a dime—tack the print for about 5 seconds. Because of the sensitivity of today's digital images—both prints and photos—make sure to tack at the outermost 1/4" so if there is any surface damage to the coating it may be covered by a mat. Keep this heat close to the edge so if any surface alteration occurs (which can happen with digital images), it can be covered by the mat. Once the art/adhesive is tacked to the substrate, the mounting package of should be stacked (top to bottom): release material, art, adhesive, substrate, and release paper.

There are many basic techniques that should be routine when dry mounting. Learning how to pre-dry, tack, pre-mount, flat mount, flush mount, and mount in bites

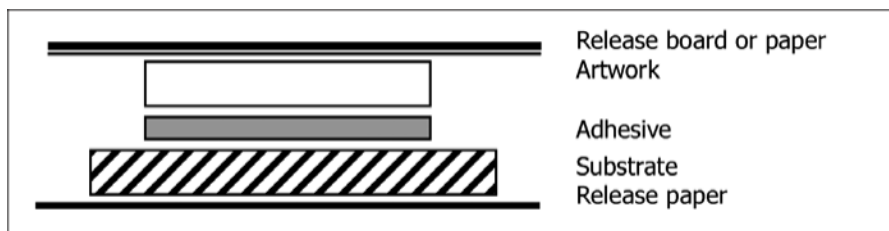
these specific groupings:

- Type of bond (permanent or removable)
- Physical composition (tissue-core or film)
- Porosity (breathable or non-breathable)
- Acidity, buffering, and pH

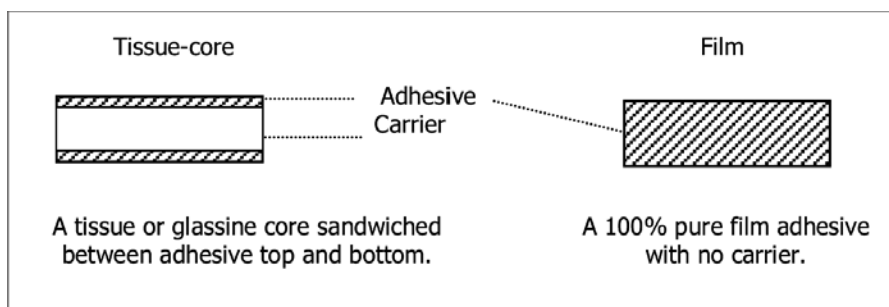
Type of Bond (Permanent or Removable)

One of the keys to successful dry mounting is remembering where the bonding actually occurs. A permanent adhesive bonds in the press as all layers of the mounting package reach full bonding temperature and remain there during the required dwell time to set the layers. A removable adhesive bonds outside of the press as it cools under a weight. It becomes removable through the reapplication of heat, which reactivates the adhesive and allows the layers to be peeled apart.

All mounted items should be placed under a weight when removed from the press, regardless of whether permanent or removable, to expedite the cooling and help flatten bowed substrates. This remains the suggested procedure regardless of where the adhesive bond occurs.



Here is how artwork and adhesive should be stacked in a heat press, whether vacuum or dry mounted.



Dry mount adhesives come in two forms: tissue-core and film.

Physical Composition (Tissue or Film)

Dry mount adhesives are available in both roll and precut sheets and come in two basic compositions: tissue-core and film. Tissues have a center core (carrier) of either porous tissue or nonporous sheet with adhesive

applied to either side. Since both sides are identical, there is no top or bottom. They are clean, dry, nontacky, relatively opaque white in color, and are also extremely time effective for production use. Tissues adapt extremely well to oversized mountings, float mounting, or multiple bite procedures.

Porosity (Breathable or Non-breathable)

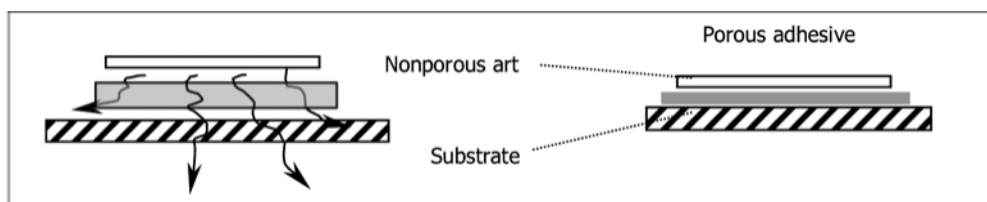
Porosity is the level at which an adhesive is permeable by moisture or air. This is an extremely important designation when selecting a tissue for compatibility with mounting materials. If a nonporous, non-breathable material, such as a photograph or heavily lacquered print, is to be mounted, then the adhesive must remain breath-

able to allow for air or steam to be forced out or through the mounting layers. If this is not allowed, the project will suffocate.

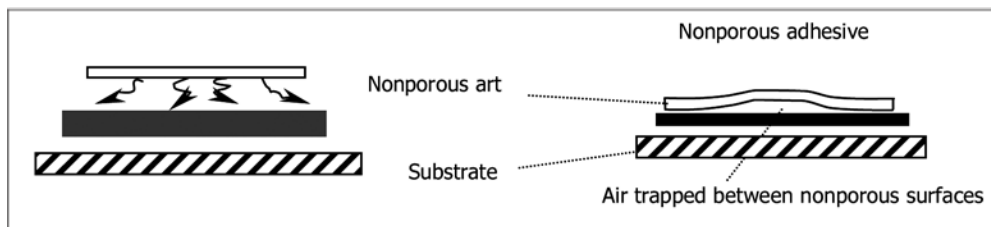
When selecting two nonporous layers in a mounting package, there is much greater potential for air to be trapped between the layers, creating bubbles. It doesn't matter where the two layers are in the package; just remember that two non-breathable layers are likely to suffocate the mounting. A nonporous RC photo and clay coated foamboard is as likely to end up with an air bubble as a heavily coated, glossy, open edition digital paper reproduction on Sintra or aluminum composite.

The best bonding comes with a truly porous item being mounted to any porous substrate because air can be

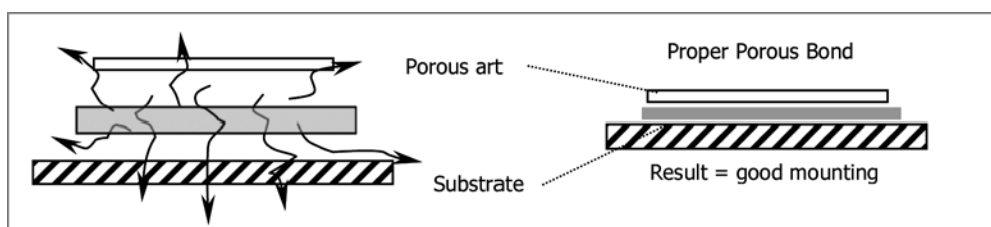
pressed out through and around all the layers. That said, most digital paper prints today have a highly reduced porosity due to the receptor coating on the paper surface to receive the ink, so consider it less than porous and use a porous substrate. There are alternative dry mount techniques, such as the Two-Step Method (page 123, *The Mounting And Laminating Handbook, Third Edition*), which is recommended for oversized photos and nonporous art in a hot vacuum press.



A porous heat-activated adhesive must be used with nonporous art so steam can be forced out of the bond.



When nonporous adhesive is used with nonporous art, air bubbles can become trapped beneath the art.



Porous art bonded with porous adhesive to a porous substrate yields the best bond by allowing all the steam to fully escape.

Additional information

National Conference, Mastering Mounting series of classes

Picture Framing Magazine, Mastering Mounting column

The Mounting And Laminating Handbook, Third Edition, 2008, Chris A. Paschke, CPF, GCF. (*TM&LH, First Edition*, 1997 and *Second Edition*, 2002, are both out-of-print and do not include digitals.)

Creative Mounting, Wrapping, And Laminating, 1999, Chris A. Paschke, CPF, GCF

Chris Paschke Article Archive and Reference Library at

www.DesignsInkArt.com/library.htm.

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Acidity, Buffering, pH

Adhesives are inert, meaning they will not react with anything else to create a new chemical reaction. It is actually the carrier sheet that needs to be checked for pH level. Some tissues may have had calcium carbonate added to the carrier sheet to bring them into the alkaline level as buffered tissues. They mount at lower temperatures, are porous, removable, and neutral pH. They are considered more delicate but still do not meet preservation standards.

Care and Maintenance

Care, maintenance, and daily routine should not be an afterthought. Develop the daily habit of wiping down the inside of your mounting equipment to remove particles that can create bumps, pits, and indentations in bonded mountings. Bumps occur when dirt is trapped beneath or between layers; pits may originate from particles stuck to the platen. Also check the platen for adhesive residue and scratches, which can transfer indentation patterns to soft foamboards.

In moist or high humidity areas, vacuum press hoses may become blackened by residue from excessive mounting moisture. Even with the following daily routine, hoses may remain black. Run the empty press through one full heated cycle with release materials to blow out hoses and draw out accumulated moisture from the unit. The final press run of the day should also be run empty but with the press lid open to draw room air through the vacuum hoses.

Besides the daily care of mounting tools and equipment, make sure to stay up to date on current mounting techniques, adhesives, and procedures by reading *Mastering Mounting* in PFM monthly and attending

classes at the West Coast Art & Frame Show in January. Much more information on mounting is available in *The Mounting and Laminating Handbook, Third Edition*, available at PFM PubCo bookstore.

Final Thoughts

Understanding the elements of TTPM; working in a clean, well-lit environment; and developing good techniques will help prevent mistakes and equip you with all the tools to be a good mounter. The proper care and feeding of all the art you frame is what sets one framer apart from another. ■



Chris A. Paschke, CPF, GCF, CMG, mounting editor, owns Designs Ink in Tehachapi, CA, featuring custom framing, fine art/graphic design, and consulting. Specializing in mounting, matting, design, and fine art, she teaches at The National Conference. She has written four books on mounting including *The Mounting and Laminating Handbook* (third edition) and *Creative Mounting, Wrapping, and Laminating*, available from PFM PubCo. She www.designsinkart.com.

The Mounting and Laminating Handbook

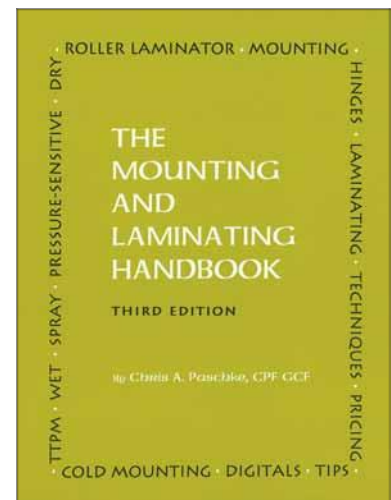
by Chris A. Paschke, CPF, GCF

The third edition of this manual includes 16 additional pages, including information about various digital technologies. Designed as a technical reference book geared to both beginners and seasoned veterans alike, it is a complete source for basic techniques, hands-on procedures, applications, and tips. Topics include heat mounting, cold mounting, laminating, and creative mounting and laminating techniques.

• Softcover, 176 pages • Item No. B543 • \$19.95

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