

Mastering Mounting: Challenging Items

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Lecture Sponsored by The Gilman Brothers Company

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Mounting Review

Invasive Methods

Mastering Mounting: Challenging Items

HA Dry Mounting

HA Roller Laminator

Cold Mount

Cold RLs

Vacuum Frame

Commercial Wet Glue

Commercial Paste

Spray Adhesive

Manual Applications

Commercial Wet Glue

Pressure-Sensitive

Spray Adhesive

Noninvasive Methods

Mastering Mounting: Sensitive Items

Natural Starch

Hinges

Kozo Backing

Alternatives

Edge Strips, Pockets

Mylar Encapsulation

Sink Mount

Static Mount

Velcro Mount

Dot Mount, EVA-PVA

Tension Mount, Fitted Mount

Condition Reports

- Paper
- Photography
- Digitals
- Textiles
- Paintings

CONDITION REPORT (from The Mounting And laminating Handbook, 3rd Edition)

Digital Print on Paper, Textile or Rigid Media

Photo, Poster Print, Giclée, LE Canvas

Liquid or Dry toner: Electrophotographic / Electrostatic

Thermal transfer: Dye sublimation / Dye transfer / Dye diffusion

Aqueous Inkjet: Thermal / Piezo / Phase change (solid wax) / Continuous flow

Solvent Inkjet: Thermal / Piezo

Client _____

Address _____

City _____ State _____ Zip _____

Phone _____ Fax _____ Email _____

Artist _____

Title/Subject _____

Declared Value _____

Size Height _____ Width _____ Thickness _____ Weight _____

Printer _____ Medium / Technology _____

Substrate _____ Micro porous _____ Swellable _____

Inkset (if known) _____ Surface Coat _____ Other _____

Condition (see damage recorded on attached grid sheet)

| | | |
|---|--|---|
| <input type="checkbox"/> Abrasion | <input type="checkbox"/> Fingerprints | <input type="checkbox"/> Perimeter Damage |
| <input type="checkbox"/> Bulge | <input type="checkbox"/> Foxing | <input type="checkbox"/> Previous Hinges |
| <input type="checkbox"/> Cockling | <input type="checkbox"/> Indentation | <input type="checkbox"/> Previous Repairs |
| <input type="checkbox"/> Crease/Fold | <input type="checkbox"/> Ink Smears | <input type="checkbox"/> Puncture |
| <input type="checkbox"/> Fading/Color Shift | <input type="checkbox"/> Moisture Damage | <input type="checkbox"/> Stains |
| | | <input type="checkbox"/> Tears |

Other _____

Conservator consultation will be required. ☐ Yes ☐ No

Conservator Report Notes _____

The client has been informed of--and agrees with--conditions on this form. ☐ Yes ☐ No

The client has been informed of the need for specific framing requirements and agrees to the methods recommended. ☐ Yes ☐ No

Client Signature _____ Date _____

Frame Designer _____ Signature _____

Condition Reports*

- 1. Art on Paper or Document**
- 2. Photography on Paper or Plastic Media**
- 3. Digital Print on Paper, Textile or Rigid Media**
- 4. Needleart and Textile**
- 5. Paintings on Stretched Support**

Always fill out a report with customer.

*Appendix: The Mounting And Laminating Handbook, 3rd Edition

Mounting Requirements

Preservation vs. Reversible

Neutral, non-damaging mounting/materials include

Starched hinges remaining after cutting loose

Screw holes in stretcher/strainers once removed

Bringing back to original state

Reversible vs. Replaceable

Safely removing mount with no residue

Digitals are all copies... therefore, replaceable

Irreplaceable items should not be mounted

Use Requirements

Residential vs. Commercial

\$10k original vs. Laminated LE on yacht

Starch hinges vs. Aggressive mount when shipping

UV acrylic vs. Acrylic Mount for public installation

Commercial Considerations

(Offices, Restaurants, Hospitality, Healthcare)

Lighting = windows, LED, Halogen, UV...

Public installation limitations

Security requirements

The Elements of Mounting - TTPM

TTPM is required procedure

TTPM applies to ALL mounting methods

TTPM is there to help

TTPM will help locate the problem

How much **time** was allowed?

What **temperature** was used?

Was it weighted (**pressure**) a full 24 hours?

Was **moisture** properly controlled?

TTPM

Time - Correct time is always required

Tack time, Open time, Draw time, Dwell time



TTPM

Temperature - Storage, equipment and glue

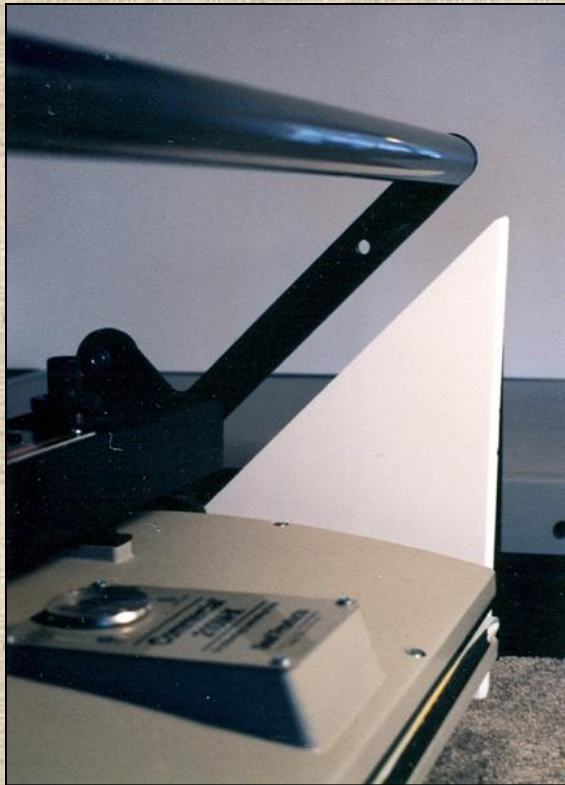
Even Wet and Spray are 60F - 90F degrees



TTPM

Pressure - Good technique and adjustments

Weighted to Dry, Cure and/or Cool



TTPM

Moisture - Required control in all methods



Substrate Selection

...helps control orange peel.

Standard Thicknesses

| | |
|-----------------|---|
| Up to 8x10" | 4-ply Mat Board, X board |
| 8x10"- 16x20" | 1/8" Foam, 2X board |
| 16x20"- 32x40" | 3/16" -1/2" Foam, 3X board Honeycomb Falconboard |
| 32x40" - 40x60" | 1/2" Foam or Gatorboard Hardboard, MDF |
| 40x60"- 48x96" | 3/4 " Honeycomb Panels Tycore, Hexamount... |

Mounting Materials & Substrates

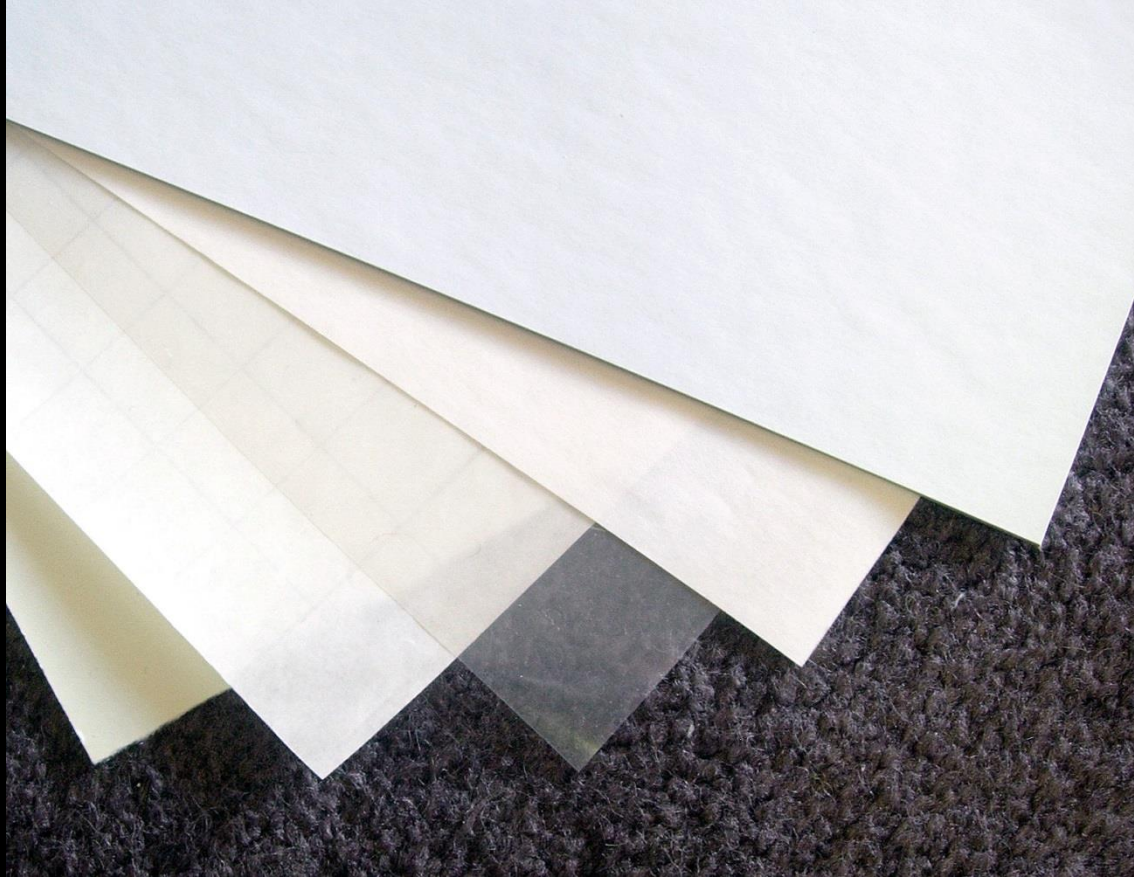
Orange Peel



The lumpy nature of a mounted image appearing like the surface of an orange peel.



Release Materials



Release papers, films, boards, temperature and pressure can impact the surface of mounted items.

Temperature - HA Foam Boards

High Temperature = 180°F-200°F

Most are permanent – bond in press

Bond 1-3 minutes mechanical, 4 minutes vacuum after draw

- Alcan HA Fome-Cor -180F
- Bainbridge HAF (Heat Activated Foam) -180F
- Bienfang Single Step -180F
- Hartman HartMount -185F
- Savage NuCor -180F, Filmtax ProCore - 200F

Temperature - HA Foam Boards

Medium Temperature = 150°F-160°F

Many are removable - bond outside press under weight

Bond 30 seconds mechanical, 1-3 minutes vacuum after draw

- KoolTack Drymount Foam -160F
- Gilman InSite HA Foam, Archival Foam -160F
- Bainbridge SpeedMount -160F



Temperature - HA Foam Boards

Low Temperature = 130°F

Permanent, stable and inert

Bonds 30 sec -1 minute mechanical press, 2 minutes vacuum

Safe for all digitals

- Gilman MountCor -130F
- Gilman MountCor Canvas -130F
- Gilman MountCor Acid-Free -130F



Temperature - HA Foam Boards

Reversible Boards = 150°F-170°F

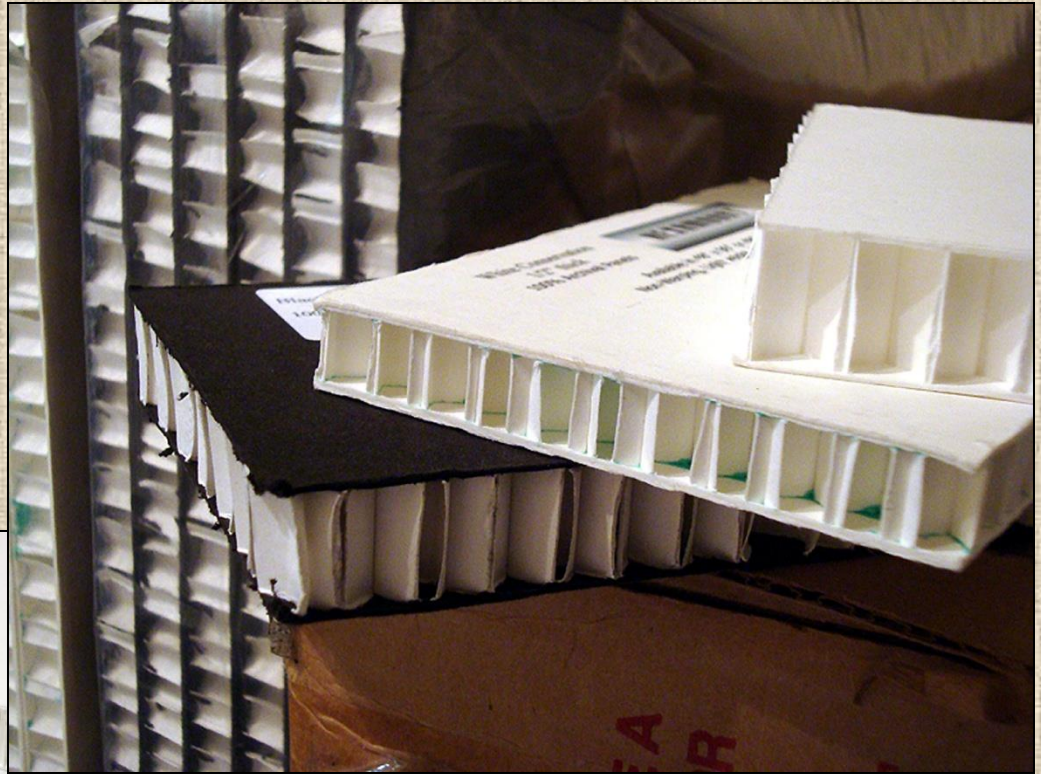
Designed to bond preservation items

Adhesive rubs off back of art after removal

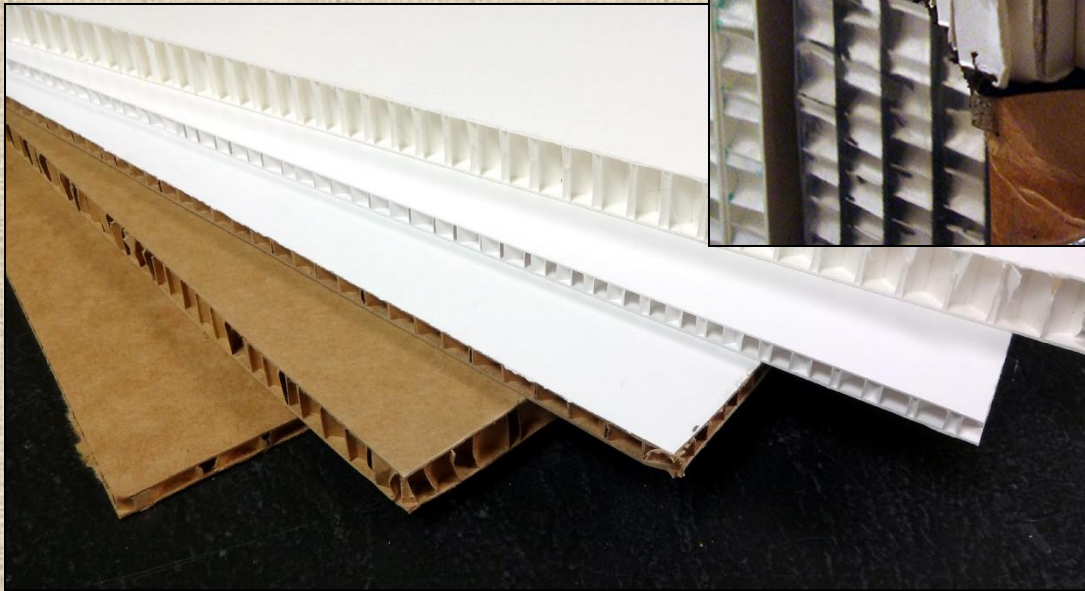
- KoolTack 100% Reversible -150F-170F
- Bainbridge Restore -150F-170F



Honeycomb Panels

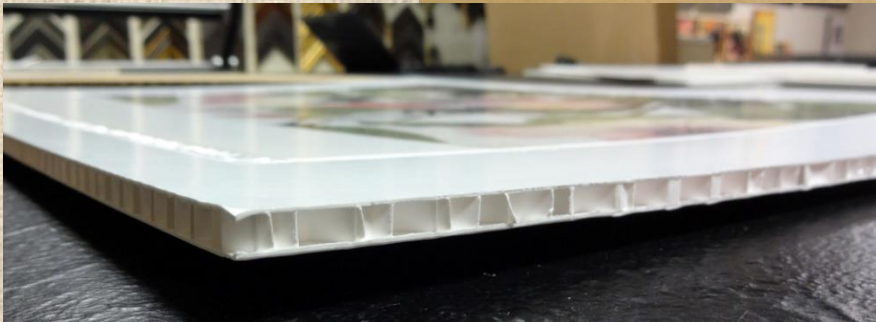
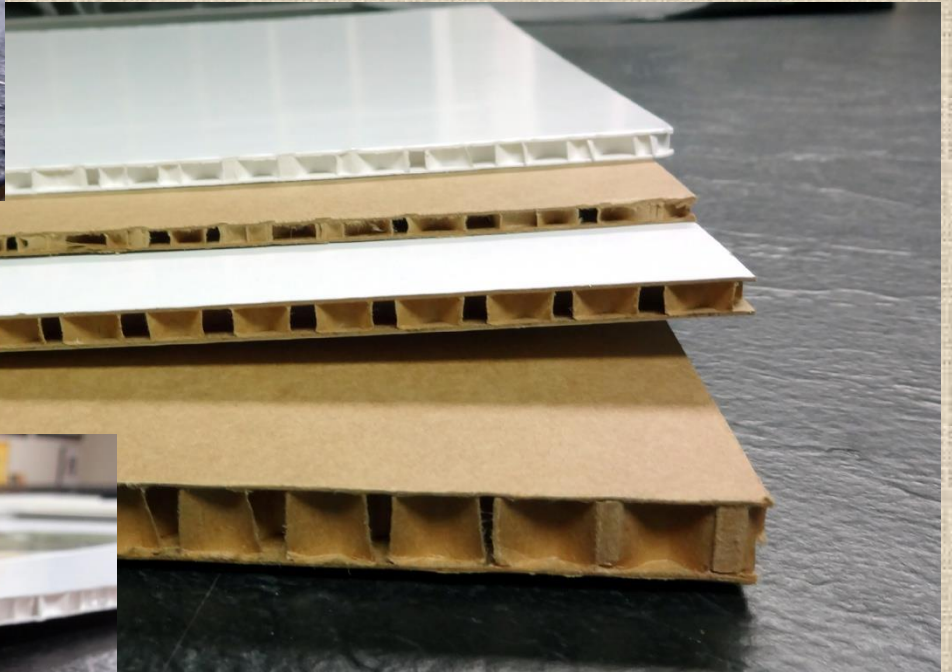
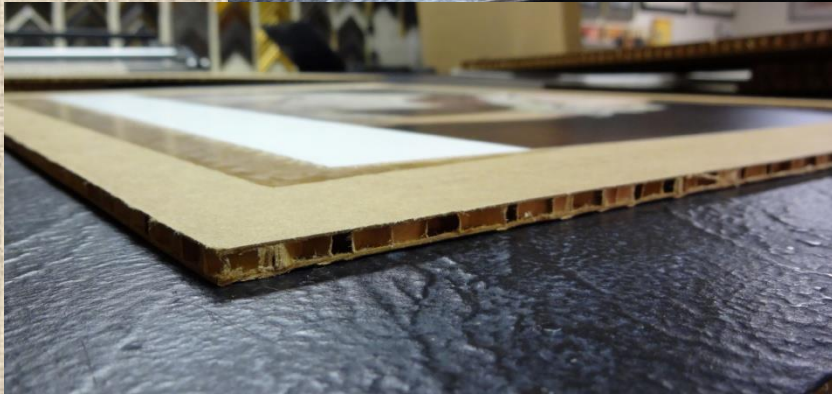
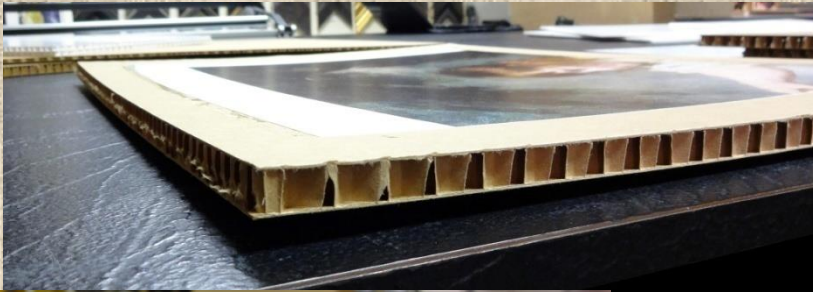


Tycore, Hexamount



Gilman Eaglecell, Falconboard Hexacomb

Warping occurs
when boards are too
thin for image size.







Coda P-S

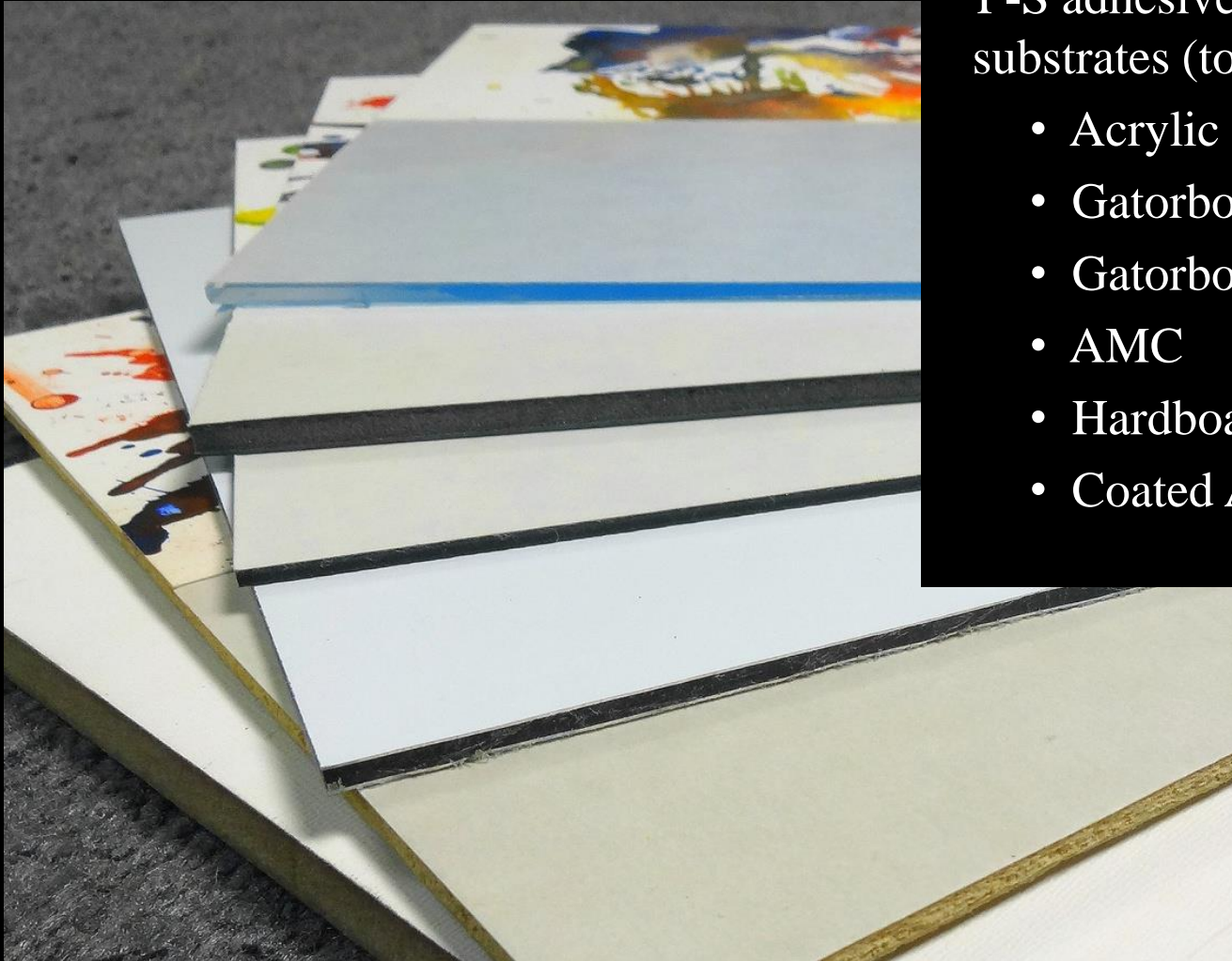
- Hardboard
- Gator – 1/2", 1/4" counter-mounted
- Sintra

KoolTack InstaMount

- Aluminum Composite (ACM)
- Gator Board
- Mighty Tough



Mounting with PSA and RL



P-S adhesives on assorted substrates (top to bottom):

- Acrylic
- Gatorboard - 1/4"
- Gatorboard - 1/8"
- AMC
- Hardboard – 1/8"
- Coated Ampersand 3/8"

Aluminum Composite Material (ACM)

Dibond



Mounting Techniques

Two-Step Mount

Mount oversized non-porous art/photos in a vacuum press:

- For non-porous substrate (Dibond)
- Use breathable tissue which mounts 185-190°F
- Add 2-3 top sheets of single or double release paper
- Cool press to 20°F below adhesive temperature (P)
- Turn on, immediately turn press up 20°F to mount (T)
- Once press achieves desired temperature, allow 2-3 min for bonding, approximately 10-15 minutes total (T)

By using more than one release sheet the platen is slower to heat and activate the materials. This allows extra time for the vacuum to be drawn and all air to be removed prior to final bonding.

Counter mounting

Allows for use of thinner substrate



RC Photo on 2 ply

Counter mounted



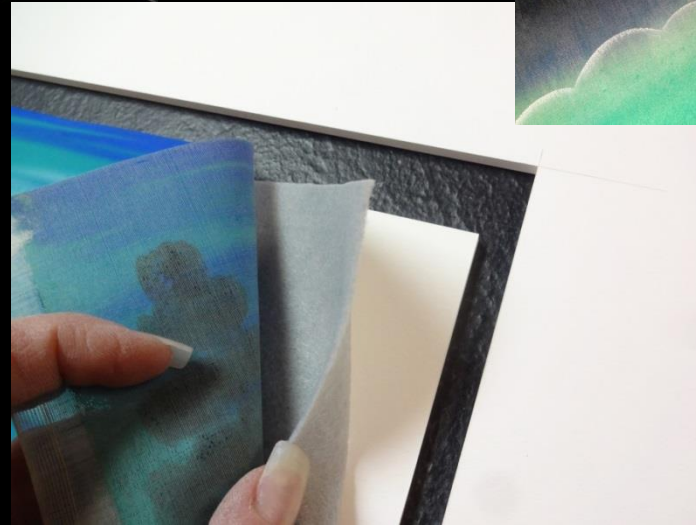
Print on 2 ply and 4 ply rag boards





Counter mount
Wet Glue

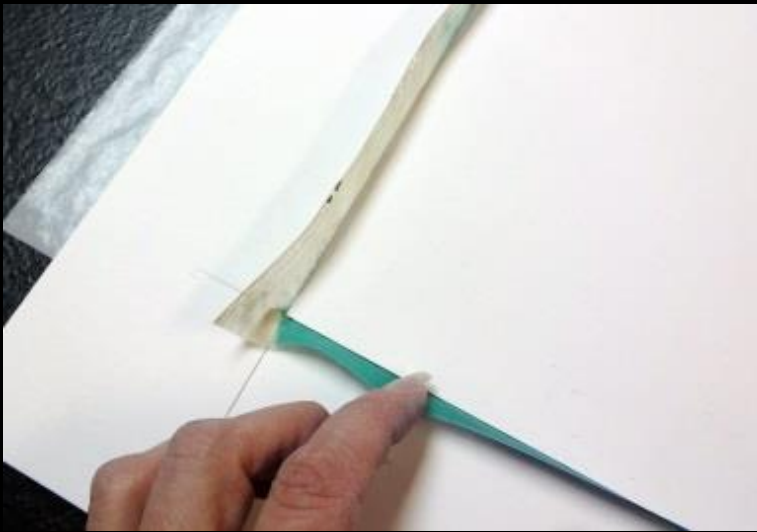
Sheer Mount



Tinting and Ghosting Underlays

Wrapped Pin Tension Mount



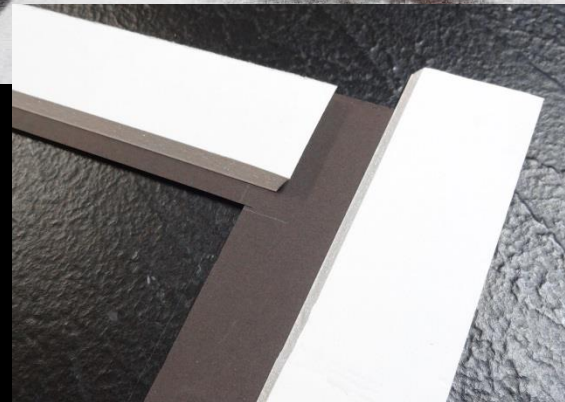


Selvage is turned and supported with rag strips, no adhesive touches painting.

Flat Pin Mount



Polyester & Wrinkles



Velcro Mount





Fabric was wet/dry
mounted to 1"
Gatorboard. Velcro was
aligned and glued.

Silicone Mount



- Four 1/4" Turkish tiles
- To 1/4"-1/2" acrylic sheet
- Lift tiles with acrylic rounds, or
- Large 1/4" thick globs of silicone
- Drill holes in mount acrylic for silicone to squeeze through
- Lifted tiles allows for keyhole

Silicone Facts

- AF version used with electronics
- Does not outgas, neutral cure, one-component, low odor
- RTV6708 Multi-Purpose
Neutral Cure Sealant #06904817
- MSC Direct <http://mscdirect.com>

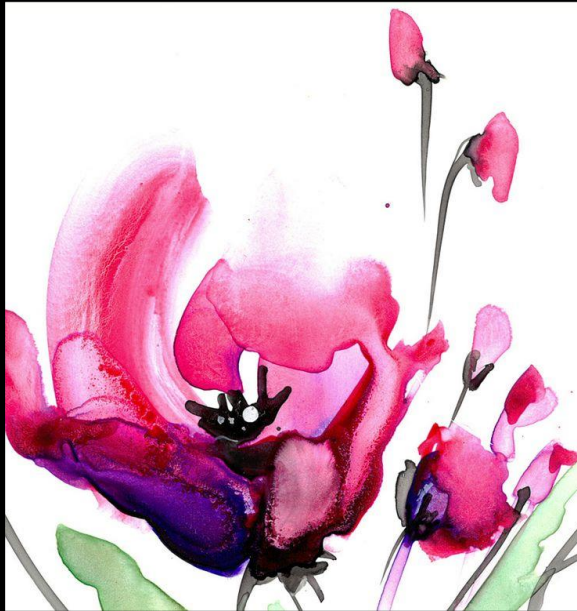


Yupo



- Neutral pH, smooth, non-absorbent, waterproof, 100% recyclable, tear- and chemical-resistant, tree-free sheet.
- Extruded polypropylene pellets.
- Signage, design, packaging, labeling.
- Three layers: sheer surface (top) and base (bottom) layers formed during the extruding process, bonded to a heavier carrier.
- May be split if not handled correctly, often removing ATG.

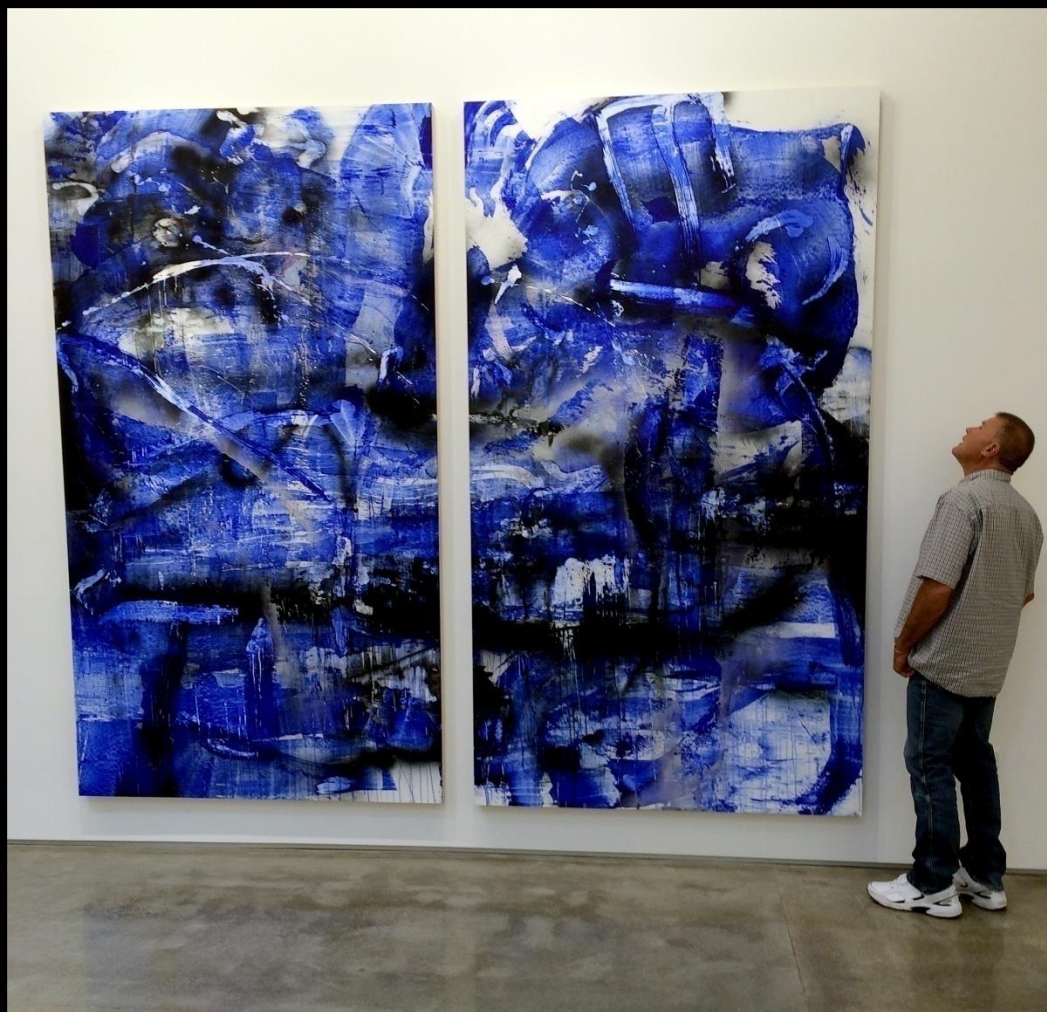
- Wipes clean.
- Paint the negatives.
- Yellows with UV light



Challenge Yourself
by Tina Dille

26x40" watercolor on 144# Yupo





Yupo 4'x8' sheet--with
acrylic and spray paint—
P-S mounted to black
Sintra on cradle with RL.

Artist Chris Truman



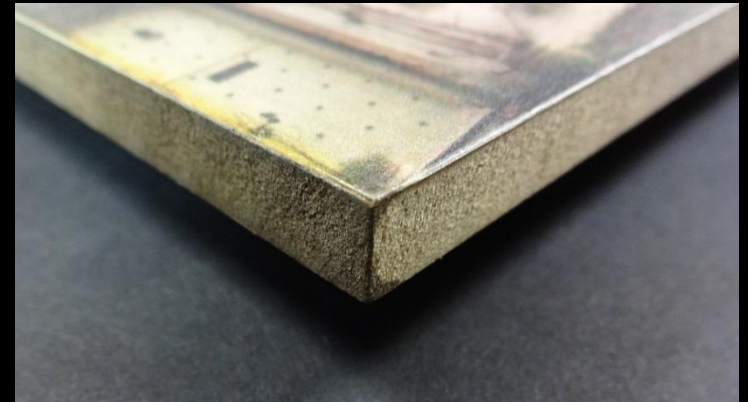
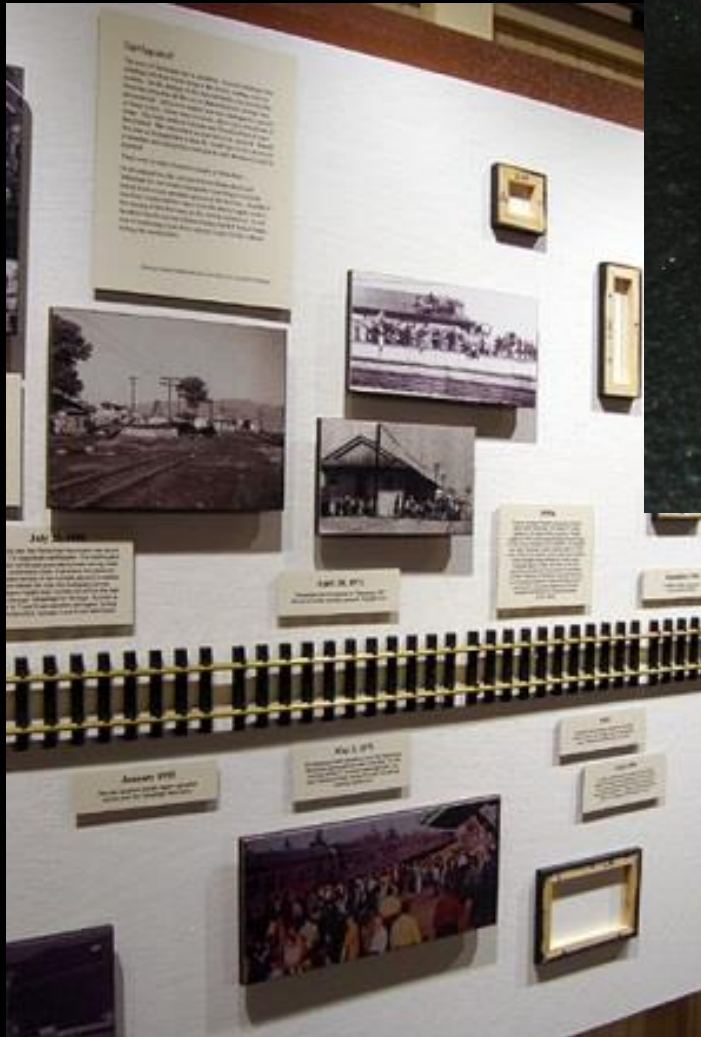
Synthetic Mount

- Not all HA boards are Yupo friendly.
- Heat may be a problem with some synthetics, test prior to mounting.
- MountCor and MountCor Canvas 130°F Yupo.
- Omega/M&M Heat Activated Mount (HAM) 170F; Bainbridge Heat Activated Foam (HAF) 160F-180F; both bond OK.
- Countermount boards larger than 24x36".
- Surface sensitivity for flush mounts with no protection against surface denting by objects being leaned against it.



Polyester encapsulated
charts bond with high
tack P-S or MountCor

Plaque Mount





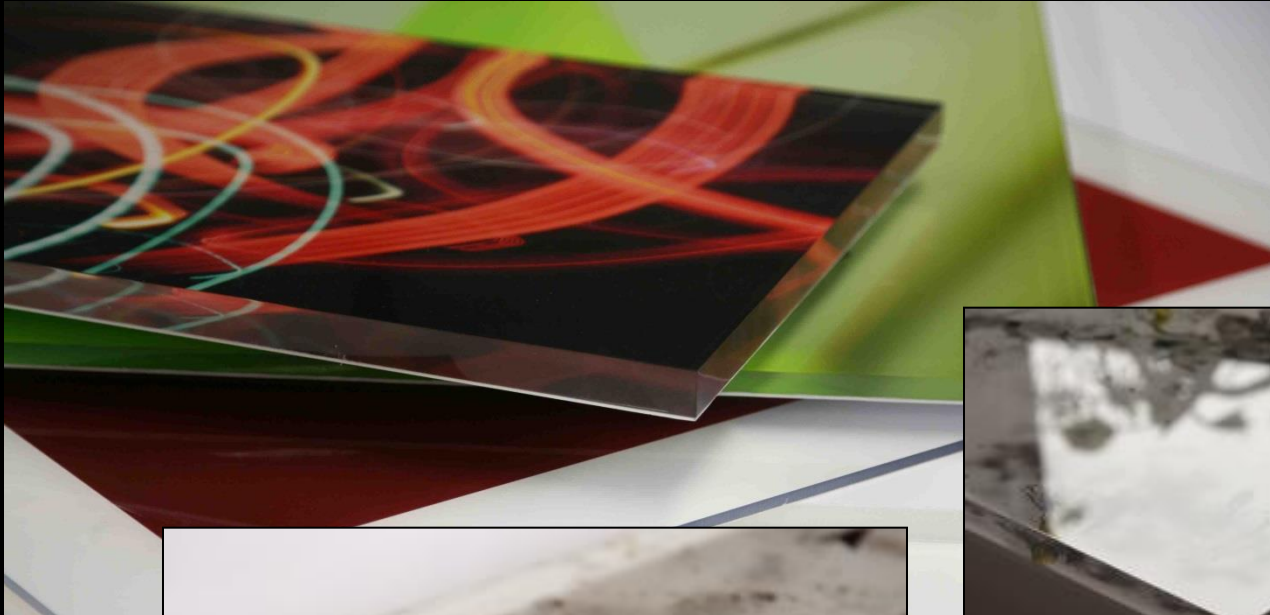
The laminate needed to be mounted first to remedy the cupping of the substrate.



Laminate was trimmed, aligned then mounted to 3/8" hardboard.



Acrylic Mount (aka Facemount)



Optically Clear Adhesives



D&K Expression® Optically Clear
Coda Transparency Adhesive
Drytac Facemount
Neschen Gudy 909
Seal Optimount

D&K Expression® Optically Clear Removable (OCR)

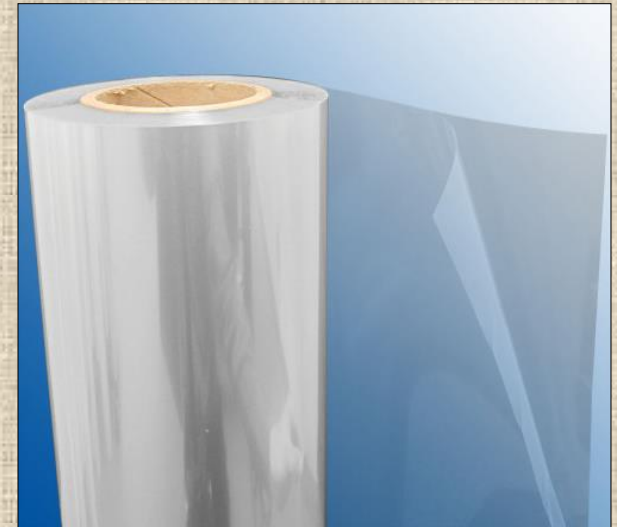
- Mounting Adhesives for acrylic and other face mounting applications.
- Removable adhesive remains firmly in place on acrylic, and optically clear substrates.
- Utilizing this removable adhesive allows graphic shops to reuse expensive substrates if wrinkling, misalignment, or other defects occur in the mounting process.

Optically Clear Removable (UV) - OCR

- Clear removable polyester carrier coated one side with a permanent solvent acrylic adhesive and a removable solvent acrylic adhesive on the other.
- Used for short to long-term/permanent mounting applications.
- For window graphics and face mounted acrylic pieces.

Optically Clear Permanent (UV) - OC

- Clear polyester carrier coated on both sides with a permanent solvent acrylic adhesive.
- Two polyester film liners protect both sides.
- For permanent indoor or outdoor mounting applications to glass or acrylic.



D&K Group



Facemounted Duratrans (polyester film)
(L) with RL, (R) manually applied

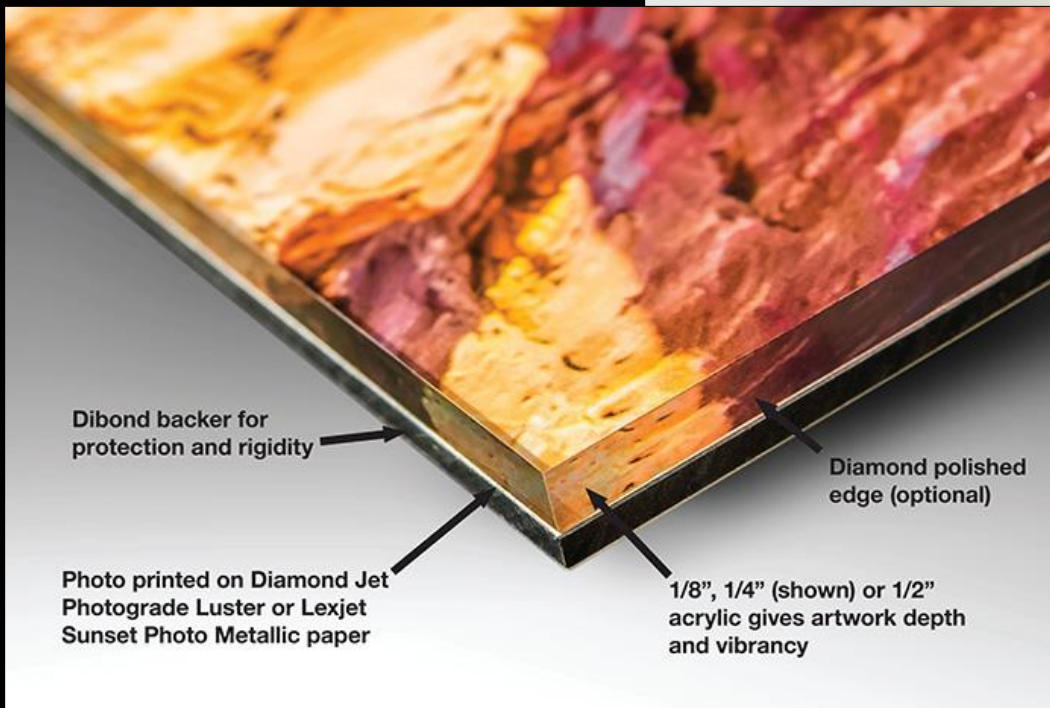


Pascal Picard Photography

Acrylic sheet 1/8" (3mm) , 3/ 16" (4.5mm) or 1/4" (6mm)
Sintra backing



Black Sintra



Dibond backer for protection and rigidity

Photo printed on Diamond Jet Photograde Luster or Lexjet Sunset Photo Metallic paper

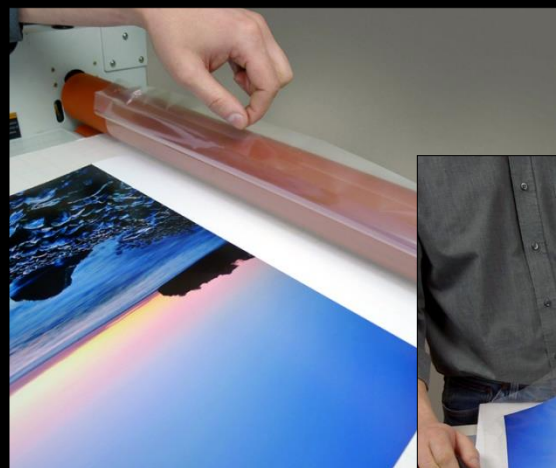
Diamond polished edge (optional)

1/8", 1/4" (shown) or 1/2" acrylic gives artwork depth and vibrancy

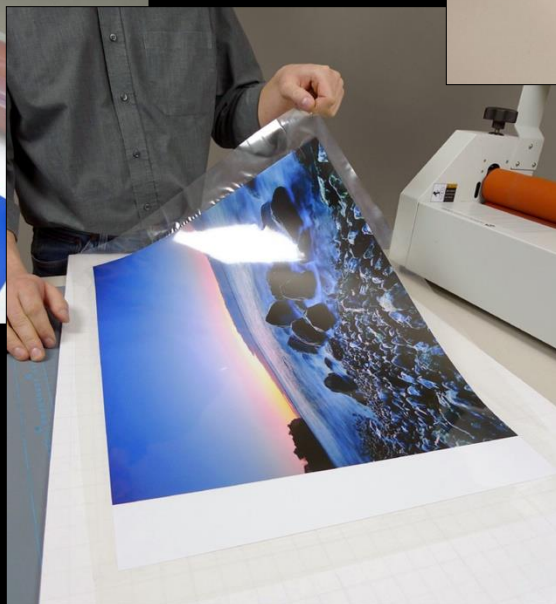
Protective Backings



1. Acrylic cut to size.



2. Adhesive is mounted to the surface of the print with release film remaining on the top.



3. Place the acrylic under the print and verify alignment of all layers. In a single motion, feed through RL peeling the release film.



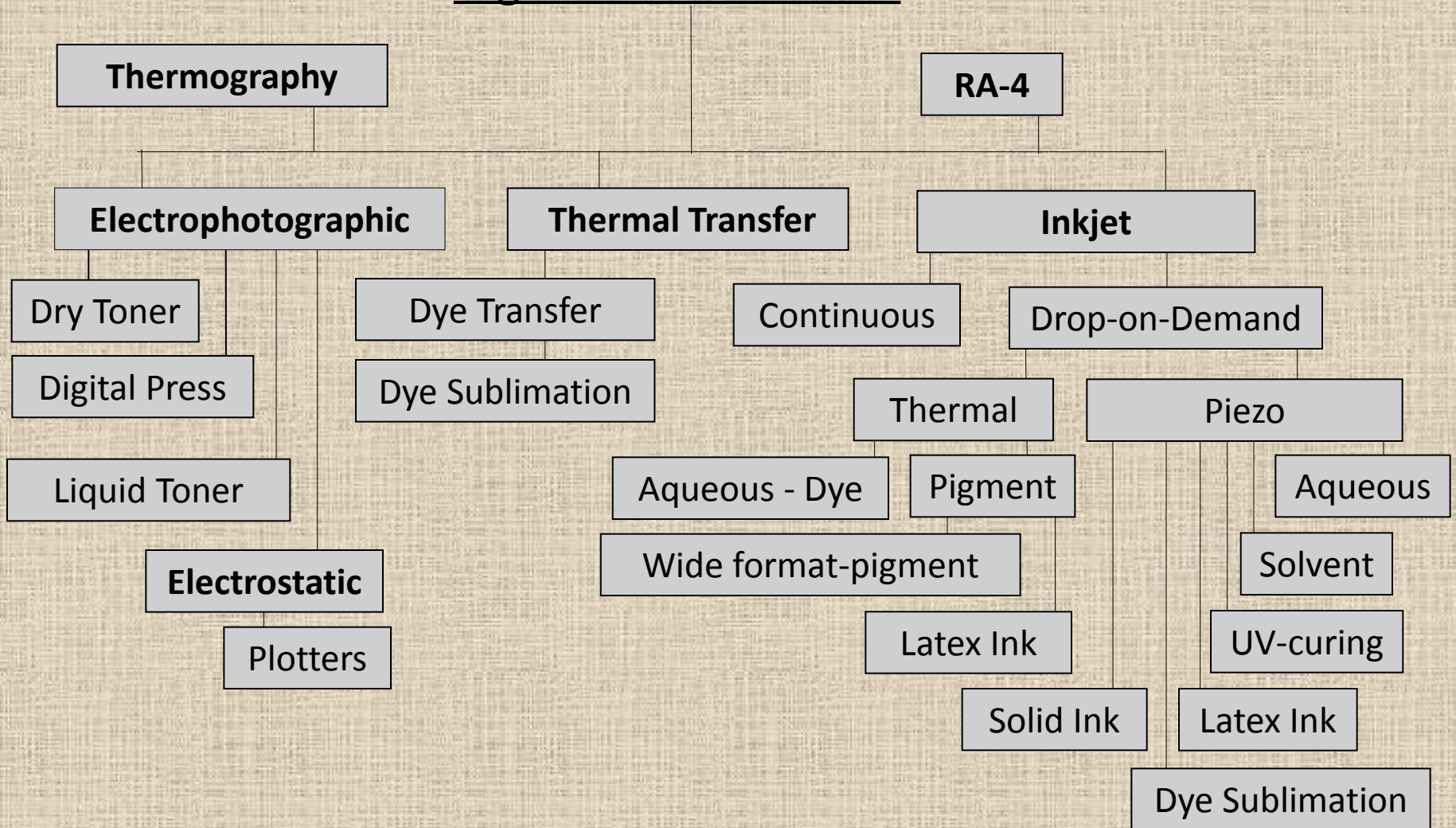
4. Pass acrylic through RL to fully adhere edges.



Digital Printing Overview

Digital Printing

Digital Umbrella 2019



Mounting Digital Canvas and Photos

- 1) Avoid heat and pressure damage.
- 2) 150°F is too hot for some digitals.

Gilman MountCor

- 130°F lowest temperature available
- 15 seconds mechanical press, 2 minutes hot vacuum
- Safe for ALL digitals, brass rubbings & high melt wax

High Tack P-S with Roller Laminator

- Commercial PS boards or In-house boards
- Drytac, D&K, Coda, Neschen Gudy...

Dye Sublimation on Metal Plate

Sentry West, 24" x 48"

Anita Jesse, artist



Dye Sublimation on Canvas

Solitude, 24" x 24"

Anita Jesse, artist



Endura Metallic Photos - Then and Now

Kodak Professional Endura Color Metallic Paper

- Stable like traditional RC
- May heat mount to 190°F
- RA-4 slightly more surface sensitive
- Discontinued 2009

Kodak Professional Endura Metallic VC Digital Paper

- New Metallic Paper has two dots separating "PAPER", "PAPIER" and "PAPEL"
- Digitally surface sensitive
- Con color shift at 190°F and above
- Mount with P-S or 130°F MountCor

Fuji Pearl Photos

Fuji Crystal Archive Digital Pearl Paper

- Kodak Professional Endura Metallic VC Digital Paper
- Surface Scratches
- Damage with breath
- Transfers substrate surface; Orange Peel
- Acts like Cibachrome
- Commercially printed on Océ LightJet
- Fuji Pearl **is not the same as** FujiFlex



Kodak Endura Paper
Mica in coating appears silver

Endura Metallic



Fuji Pearl RC (R)

Cibachrome vs. FujiFlex

Ilfochrome Classic

- Traditionally comes from slide film
- Current day are digitally produced
- 100% polyester film substrate
- Glass-like surface very susceptible to damage
- Static mount method to maintain image

FujiFlex Crystal Archive Printing Material

- Glass-like surface very susceptible to damage
- 100% polyester film substrate
- Transfers substrate surface
- Static mount image as above

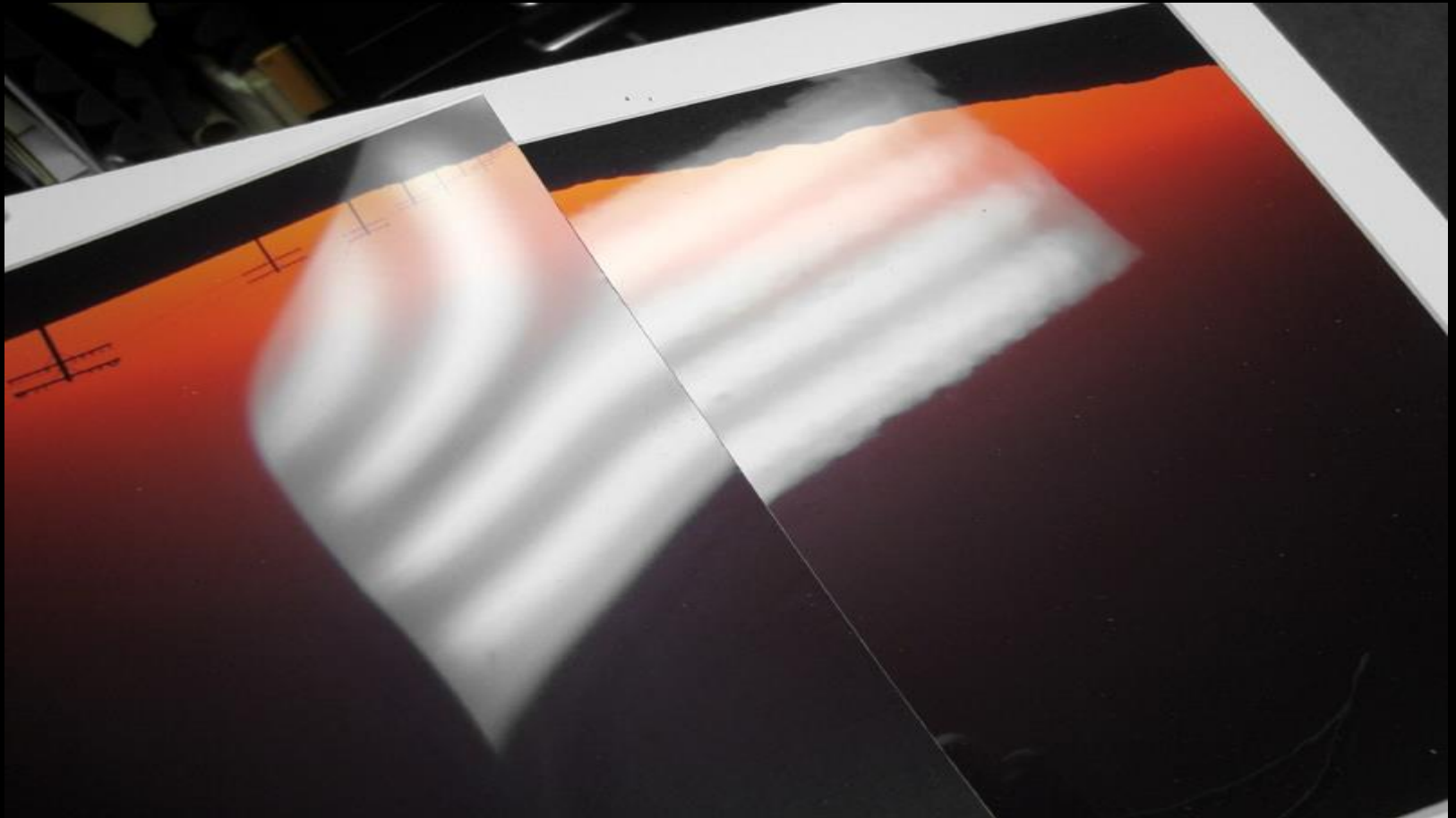


FujiFlex polyester (L), Ilfochrome Classic polyester (R)

High gloss,
smooth surface
must be maintained

Prone to scratches
and moisture





FujiFlex glass-like surface calls for static mounting (L)
Even low temp 150°F, short dwell time 15 sec produces orange peel (R)

Suggested Mounting Chart

| LEGEND X Approved process x Marginal approval / test first T Type of mounting technique R Reversible dry mount (Restore) A Preservation alternative s Sink mount S Static mount C Corners, pockets, edge strips L Lacing M Mylar, polyester encapsulation | Mounting Technique | Preservation Alternative | Preservation Hinges | Starch Paste | Wet Glue (by hand) | Spray Mount (by hand) | Pressure-Sensitive Film | Pressure-Sensitive Board | Cold Vacuum Mount | Dry Mount | HA Laminate | Tolerance | P-S Roller Laminator | HA Roller Laminator |
|---|--------------------|--------------------------|---------------------|--------------|--------------------|-----------------------|-------------------------|--------------------------|-------------------|-----------|-------------|-----------|----------------------|---------------------|
| Bark Painting | | s | X | | | | | | | | | | | |
| Black & White Photograph | | C | X | | | | X | X | X | X | X | X | X | X |
| Brass or Stone Rubbing | | C | X | | | | X | X | | R | | | | |
| Blueprint / Cyanotype | | | | | | | X | X | | | | | X | |
| Canvas Transfer | | | X | | | | | | X | X | | | X | X |
| Certificate (replaceable) | | | | X | X | X | X | X | X | X | X | X | X | X |
| Charcoal Drawing | | C | X | X | | | | | | R | | | | |
| Chromogenic RC Photograph | | | X | | | | X | X | X | X | X | X | X | X |
| Cibachrome (static mount) | | S | X | | | | | | | | | | | |
| Collage (flat paper) | | C | X | X | X | X | X | X | X | X | | | X | X |
| Color Tinting | T | | | X | X | X | X | X | X | X | | | X | X |
| Diazo Blue-line | | | X | | | | X | X | | X | X | X | X | X |
| Digital Canvas-DE | | | | | | | x | | | x | | | X | X |
| Digital Photo-DE (RA-4, dye sublimation) | | | X | | | | X | X | X | x | | | X | X |
| Dye Sublimation-DE | | C | X | | | | X | X | X | X | X | X | X | X |
| Embossed Art or Lettering | | s | X | | | | | | | | | | | |
| Encaustic (on rag board or hardwood) | | s | | | | | | | | | | | | |
| Fabric Wrapping | T | | | X | X | | | | X | X | | | | |
| Face Mount | T | | | | | | | | | | | | X | |
| Fax (thermographic) | | | X | | | | X | X | X | | | | X | |
| Fiber-base Photo (silver gelatin B&W) | | C | X | X | X | X | X | X | X | X | X | X | X | X |
| Flat, Plain or Flush Mount Photograph | T | | | X | X | X | X | X | X | X | | | x | |
| Float Mount | T | | X | X | X | | X | X | | X | | | | |
| Gelatin POP (cabinet card photo) | | s | | | | | | | | | | | | |
| Giclée Limited Edition | | C | X | | | | | | | R | | | | |
| Giclée Canvas | | | | | | | X | | | | | | X | X |
| Ghosting | T | | | | X | X | X | | X | X | | | X | X |
| Heavy Fabrics (raw canvas) | | | | X | X | | | | | x | | | X | |
| Holograms | | C | X | | | | X | X | | | | | X | |
| Inkjet Piezo (porous coating) | | C | X | | | | X | X | | X | x | | X | X |
| Inkjet Thermal (swellable coating) | | C | X | | | | X | X | | | | | X | |
| Kozo Backing | T | | | X | | | | | | | | | | |
| Laser Print / Copier (B&W) | | X | X | | | | X | X | | | | | X | |
| Laser Print / Copier (color) | | X | X | | | | X | X | | | | | X | |
| Liquid Toner (digital press) | | C | X | | | | X | X | | X | | | X | X |

| LEGEND Cold vacuum = wet, spray, P-S. DE = digital exposure | Mounting Technique | Preservation Alternative | Preservation Hinges | Starch Paste | Wet Mount (by hand) | Spray Mount (by hand) | Pressure-Sensitive Film | Pressure-Sensitive Board | Cold Vacuum Mount | Dry Mount | HA Laminate | Tolerance | P-S Roller Laminator | HA Roller Laminator |
|---|--------------------|--------------------------|---------------------|--------------|---------------------|-----------------------|-------------------------|--------------------------|-------------------|-----------|-------------|-----------|----------------------|---------------------|
| Magazine Page (two-sided) | | | X | X | X | X | X | | X | X | | | X | X |
| Montage (created by framer) | | | | X | X | | X | | X | X | | | X | X |
| Monoprint | | C | X | | | | | | | | R | | | |
| Needleart | | L | | | | | | | | | | | | |
| Newspaper Text (two-sided) | | C | X | X | X | | X | | X | X | | | X | |
| Offset Lithograph - Open Edition | | C | X | X | X | X | X | X | X | X | X | X | X | X |
| One-sided Text Flier | | C | X | X | X | X | X | X | X | X | X | X | X | X |
| Original Art (graphite) | | C | X | X | | | | | | | | | | |
| Oversized Photograph | | | | | X | | | | X | X | | | X | X |
| Oversized Open Edition | | | | | X | | | | X | X | | | X | X |
| Papercut Art | | M | | | | | | | | | | | | |
| Papyrus Painting | | s | X | | X | | X | | | X | | | | |
| Pastel | | | X | | | | | | | | | | | |
| Parchment or Sheepskin | | C | X | | | | | | | | | | | |
| Plain Mount | | | | X | X | | X | | X | X | | | | |
| Polaroid | | s | X | | | | | | | | | | | |
| Polyester Encapsulate | | | | | | | | x | | x | | | X | |
| Poster | | | X | X | X | X | X | X | X | X | X | X | X | X |
| Premount | T | | | | | | | | | | | | | |
| Puzzle | | | | X | X | | | X | X | X | X | | | |
| RC (chromogenic) Photograph | | | X | | | | X | X | X | X | | | X | X |
| Sanded Paper (blank) for Pastel | | | | | | | | | | | X | | | X |
| Self-Shaping | T | | | | | | X | | | X | | | | |
| Serigraph (silkscreen) | | C | X | | | | | | | | R | | | |
| Signed Limited Edition | | C | X | | | | | | | | R | | | |
| Sheer Fabrics | | | | x | x | | | | | x | | | | |
| Silk Embroidery | | L | | x | | | | | | | | | | |
| Silk Scarf | | S | | | | | | | | | | | | |
| Sumi Painting (black ink) | | | X | X | | | | | | | | | | |
| Thermographic Tickets | | | X | | | | X | X | X | | | | | |
| Textured Decorative Papers | | | | X | X | X | X | X | X | X | | | | |
| Translucent Rice Papers | | | X | X | X | | | | X | X | | | | |
| Two-sided Polyester Encapsulation | T | | | | | | | | | | | | | X |
| Vellum Animal Skins | | C | X | | | | | | | | | | | |
| Watercolor (Chinese on rice paper) | | | X | X | | | X | | | | | | | |
| Watercolor Paper (unpainted) | | C | X | X | X | | | | | X | | | | |

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