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Traditional Silk Painting using PRO H-Reactive Dyes (Powder or Liquid)

Please read directions carefully before starting.

Use PRO H-Reactive Dyes for Traditional Silk Painting with a resist. This technique can also be used on Cotton, Linen and Rayon. We've found that H-Liquid Dye has an improved flow property over powdered H Dyes, producing even fluid color. Outlined below are three methods for fixing dye on your fabric; please read through them before choosing a method that suits your application needs. It is important to sample before working on large projects. For additional information visit our web site at www.prochemical.com.

- ✘ Wear rubber gloves, apron or old clothes.
- ✘ All utensils used for dyeing should not be used for food preparation.

Supplies

PRO H-Reactive Dye (powder or liquid)

Urea

PRO Chem Flakes

Synthrapol

Metaphos (optional, but use it if you have hard water)

PRO Dye Activator or Soda Ash

or Baking Soda (Sodium Bicarbonate)

or PRO Fix LHF

Sabra Silk Resist (see Resists Notes at the end for information on other resists.)

Procedure

- 1. Scour the fabric** by machine washing in HOT 140°F (60°C) water, or by hand in a pot on the stove with ½ tsp (2 gm) PRO Dye Activator or Soda Ash and ½ tsp (2.5 ml) Synthrapol per pound of fabric (454 gm, or 3 to 4 yards cotton muslin, or 8 yards 8mm China Silk, or 3 Medium T-shirts, or 1 sweatshirt). Rinse thoroughly. This step does not add the dye fixative to the fabric; it prepares your fabric for dyeing by removing any dirt, oil or sizing.
- 2. Transfer the design** to your fabric using a soft pencil. You may want to draw your design freehand or use a light table to help you transfer the design. You can also use a window or sliding glass door. Tape the pattern to the glass surface; then tape the fabric over the pattern and lightly trace the design onto the fabric.
- 3. Stretch the fabric.** Use a lightweight fabric, such as fine cotton or silk for your first attempts, as the resist penetrates easily on light weight fabrics. There are several frames available on the market to stretch fabric for silk painting. You can also make your own using an artist stretcher frame and stainless steel pushpins. First pin the corners, then the middle of the sides, pulling the fabric taut. You can avoid stretch lines by staggering the placement of the pushpins and not placing them directly across from one another. Continue placing pins every 2 to 3 inches around all four sides, always pinning from the center to the corners.
- 4. Apply the resist** by pressing the applicator tip firmly against the stretched fabric. It is important to maintain an even flow and continuous line as you trace the design. Dye paint will flow through any gaps in the resist line. Check the back of your fabric to make sure the resist penetrated through. If you see any gaps, fill them in from the front. You may need to apply the resist on both sides of heavy fabric. Once you've outlined your design, let the resist dry.

Sabra Silk Resist is clear, but you can color it. Add approximately ⅜ tsp (1 gm) of PRO MX OR H dye powder to ½ cup (125 ml) of the resist. Mix until it is thoroughly dissolved. Once steam set, the color added to the resist does not wash out, producing a colored line. We've found it works best if the dye is added the day before you use it. See Resist Notes at the end for information about other resists.

- 5. Make the H-Urea Water** by mixing together the ingredients below. Allow H-Urea Water to cool to room temperature before using. Store unused H-Urea Water at room temperature in a closed container. Discard it if you detect an ammonia smell.

9 level Tbl (100 gm) Urea

1 level Tbl (8 gm) PRO Chem Flakes

1 level tsp (7 gm) Metaphos (optional, but use if you have hard water)

1 quart (1 liter) warm 110°F (44°C) water

6. Make the Dye Paint.

Dye Powder: Thoroughly dissolve the desired amount of dye powder, from the following chart, with just enough H-Urea Water to make a lump free paste (approximately ¼ cup or 60 ml). Then add H-Urea Water to make 1 cup (250 ml) of Dye Paint and stir until thoroughly mixed. Mixed dye paint, without fixative, can be stored for 2 months in a cool dark place without color loss. Discard dye paint if you detect an ammonia smell.

Liquid Dye: Measure the desired amount of liquid dye, from the following chart, into a 1 cup (250 ml) container and add H-Urea Water to make 1 cup (250 ml). Stir until thoroughly mixed. Mixed dye paint, without fixative, can be stored for 1 year in a cool dark place without color loss. Discard dye paint if you detect an ammonia smell.

For each cup of Dye Paint, use the amount listed below of PRO H-Reactive Dye (powder or liquid) for the shade you want.

	Pale	Medium	Dark	Black
Dye Powder	½ tsp (1.5 gm)	2 tsp (5 gm)	4 tsp (10 gm)	8 tsp (20 gm)
25% Liquid Dye	2 tsp (10 ml)	5 tsp (25 ml)	10 tsp (50 ml)	20 tsp (100 ml)
30% Liquid Dye	1¼ tsp (6.25 ml)	4 tsp (20 ml)	8 tsp (40 ml)	16 tsp (80 ml)
40% Liquid Dye	1 tsp (5 ml)	3 tsp (15 ml)	6 tsp (30 ml)	12 tsp (60 ml)

7. Add fixative to the Dye Paint. Please read the three methods below then choose the one that best suits your application needs.

Method #1 PRO Dye Activator or Soda Ash

Just before applying the dye paint to the fabric dissolve 1 tsp (4 gm) of PRO Dye Activator or Soda Ash in each 1 cup (250 ml) of dye paint. Stir until it is thoroughly mixed. Dye paint is ready to paint on stretched fabric as outlined below.

Set Dye: Allow patterned fabric to air dry, and set dye with steam or dry heat as outlined below.

Shelf Life: Dye paint with PRO Dye Activator or Soda Ash may be stored for 3 weeks in a cool dark place without color loss. Note the date on the dye paint and discard after 3 weeks.

Method #2 Baking Soda

Just before applying the dye paint to the fabric dissolve 1 tsp (4 gm) of Baking Soda in each 1 cup (250 ml) of dye paint. Stir until it is thoroughly mixed. Dye paint is ready to paint on stretched fabric as outlined below.

Set Dye: Allow patterned fabric to air dry, and set dye with steam or dry heat as below.

Shelf Life: Dye paint with Baking Soda may be stored for 2 months in a cool dark place without color loss.

Method #3 PRO Fix LHF

Paint the fabric without adding Baking Soda or PRO Dye Activator or Soda Ash to the dye paint.

Set Dye: Allow patterned fabric to air dry thoroughly, and set with PRO Fix LHF as outlined below.

Shelf Life: Dye paint may be stored for 2 months in a cool dark place without color loss.

8. Apply the dye. Fill a wide mouth container with water; use this to rinse your brushes. The size of the area you are painting determines the size of brush you need. Use a small brush for small areas and a larger brush to cover bigger areas. Dip the brush into the dye paint and lightly touch the brush to the center of an enclosed area. Allow the dye paint to spread out to the resist line. Continue adding dye paint and blending brush strokes or colors while dye is still wet and until the enclosed area is filled. Work quickly to prevent the dye from drying before you have all the color applied to an area. Be careful not to flood the fabric with too much dye, or the resist lines will break. Use a cotton swab or dry brush to mop up extra dye that pools in an enclosed area. Do not paint over the resist line.

Add visual texture to your silk painting with some of the pattern techniques below.

- Work "wet on wet" for fluid shading and harmonious color blending.
- A dark-edged ring is characteristic of applying dye paint to a dry dyed area. This is known as a "wet on dry" patterning technique.
- Sprinkle salt onto freshly painted wet silk for star burst explosions. Mixing alcohol with the dye paint exaggerates the star burst pattern. Add 2 tsp (10 ml) of alcohol to every ¼ cup (60 ml) of dye paint from Step 5. Timing is critical. If the silk is too wet, the salt completely dissolves. If the silk is too dry, there is not enough moisture for the salt to create the star burst pattern. Try different kinds of salt for various size patterns. As soon as the fabric is dry, brush off the salt.

9. Set the dye. Please read the dye setting methods below then choose the one that best suits your application needs.

Steaming

The canning kettle must be deep enough to hold the wrapped fabric and wide enough so that the fabric bundle does not touch the sides of the pot. Invert the wire basket and place it in the bottom of the kettle. This serves as a platform for the bundled fabric to rest.

Make sure your painted or printed fabric is dry. Loosely roll the fabric, jelly roll fashion, in between a piece of muslin, cotton sheeting, pellon, blank newsprint, or kraft paper, so the patterned surface does not come in contact with itself. Then roll it like a cinnamon roll, lengthwise, and loosely tie it to secure this shape.

Put water in the bottom of the steamer. Make sure the water is up to, but does not touch the bottom of the wire platform where the fabric bundle will sit. Turn on the heat and once the water is boiling and is producing a good head of steam, place the fabric in the kettle on top of the inverted wire basket.

Wrap a towel around the lid of the canner to absorb condensed steam. This protects the fabric bundle from droplets of water falling back onto the bundle, which causes bleeding of the dyes.

Set the timer for 30 minutes. Check the amount of water periodically and add boiling water as necessary.

Dry Heat

Not recommended for viscose rayon or silk.

Clothes Dryer: Air dry patterned fabric; then cure in a clothes dryer on the HOTTEST setting for 45 minutes.

Bake: Prepare fabric as for steaming and bake in oven 5 minutes at 300°F.

PRO Fix LHF

Pour PRO Fix LHF into shallow pan or container. Using a wide soft brush or paint roller, apply LHF to the right side (patterned side) of the fabric. Use a minimum of brush strokes to avoid smearing your design. Let LHF dry a little bit then cover your fabric with plastic and cure for at least 24 hours. Room temperature **must** be above 70°F (22°C). We've found that the warmer the cure temperature, the darker the final color. LHF can also be steam set. Prepare fabric as outlined for steaming; make sure PRO Fix LHF is completely dry before rolling the fabric.

10. Rinse the fabric. After setting the dye, rinse fabric thoroughly in a bucket of room temperature 75° to 95°F (24° to 35°C) water. Change the water 3 to 4 times. Then wash with very HOT 140°F (60°C) water adding ½ tsp (2 ml) Synthrapol per pound (454 gm) of fabric. Rinse well and dry. Black and very dark colors may need a second HOT Synthrapol wash.

Resist Notes Try these other resists for added variation.

Presist is a water based resist that is a cross between gutta and a starch resist. It washes out in the rinse water and is non-toxic. It has the added bonus of discharging H-dyes. Its caramel color also makes it easy to see.

Solvent based gutta is available in clear, silver, gold, and black. If necessary, transfer the gutta to an applicator bottle with a narrow spout. If the gutta is too thick to penetrate the fabric, thin it down with the gutta solvent. The thickness and amount of gutta you need depends upon the type and density of the fabric. Remove solvent based clear gutta by dry cleaning; do not dry clean the gold, silver, or black gutta as they are also removed through the dry cleaning process.

Pebeo water based colored gutta is applied directly from the tube. After it is dry, heat set it with a dry iron using a press cloth between the iron and the fabric. Set the iron at the appropriate temperature for your fabric. This colored gutta remains a permanent part of the fabric, which dry cleaning does not remove. It leaves a slightly raised surface on the silk.