Procion[®] MX

Instructions

Read through all instructions before beginning your project.

<u>Tie Dyeing</u> <u>Immersion Dyeing</u> <u>Silkscreen Printing & Hand-Painting</u> <u>Batik</u> <u>Dyeing Reed, Rattan & Wood with Procion MX Dyes</u> <u>Hints & Tips for Dyeing with Procion MX Dyes</u>



Tie-Dye

There are 11 standardized colors (see <u>hints and tips</u> for list) in the Procion MX line. All other colors, no matter the manufacturer, are mixed formulas of two or more of these standardized colors. We offer a broad range of colors for your convenience, but the ultimate dyer only needs to stock the standardized colors.

Soda Ash Pre-Soak Method

Be sure to prewash fabric to remove any dirt, grease or sizing. We suggest using Synthrapol®.

- I. Wear gloves. Thoroughly dissolve I cup soda ash per gallon of water. Soak fabric in the soda ash solution for at least 20 minutes. Then, wring out by hand.
- 2. Fold and tie fabric. Visit Jacquard's website for pattern ideas.
- 3. In I cup of tap water, mix 2 or more teaspoons of dye. Apply the dye to the fabric using a squirt bottle, paint brush or sponge. Turn the piece over and repeat the pattern on the opposite side. Apply as many colors as you like; however, oversaturation may cause all your colors to run together.
- 4. Cover fabric with plastic wrap and let stand for 12 to 24 hours in a warm place.
- 5. For rinsing: While wearing gloves, rinse the dyed fabric first with cool water, then with increasingly warmer water. After 3 or 4 rinses, when the water is nearly clear, prepare a soap soak. Use 2 to 3 gallons of very warm tap water and 1½ teaspoons of Synthrapol[®]. The fabric should sit in this soap bath for 5 to 10 minutes. Rinse 3 or 4 additional times with warm water.

Hints on Folding & Binding

- Always fold on a clean, flat surface.
- When folding or bunching, expose as much fabric as possible.
- Make small folds rather than large folds.
- Use string, rubber bands or narrow elastic for resists. Bind tightly.
- Accordion, Horizontal, Diagonal or Vertical Fold Pleat the fabric in 1" or smaller folds and bind. This will make parallel lines of the dye if applied on the folded edges.
- **Spiral -** With the fabric lying flat, select a point and twist, spiraling the fabric around that point to make a bundle that looks like a cinnamon roll. Dye applied in pie-shaped wedges will create a spiral when the fabric is opened.
- **Circles -** Select a point and lift the fabric by that point. Smooth the fabric to make a cone. Bind along the cone. Dye applied in horizontal bands between the bindings will make concentric circles.
- **Dots -** Select a point and lift the fabric by that point. Bind fabric close to the point. Select other points and bind. Dye applied to the points will make dots of color. The binding will keep the dye from making large spots.

Remember that these techniques discussed here are only suggestions and a quick reference. There are a number of variations and possibilities when using dyes. You will find further examples at <u>http://www.jacquardproducts.com/projects</u>. Experimentation is the best method.

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Immersion Dyeing

There are II standardized colors (see <u>hints and tips</u> for list) in the Procion MX line. All other colors, no matter the manufacturer, are mixed formulas of two or more of these standardized colors. We offer a broad range of colors for your convenience, but the ultimate dyer only needs to stock the standardized colors.

Immersion or tub dyeing is submerging the fiber being dyed in the dye bath containing water, a specific amount of dye and the appropriate chemical assistants for a specific length of time. For smooth, even color, the dye bath must be stirred frequently. A large enamel or stainless steel container or plastic bucket can be used for holding the dye bath.

Stirring Fiber Reactive Dye Baths

For even, smooth color, the fiber should be able to move freely in the dye bath. Additional water in the dye bath will dilute the dyes more than necessary and decrease the shade and increase the dyeing time. Increasing the volume of the dye bath requires the dye time to be longer for the dye molecules to reach the fiber. To prevent uneven dyeing stir dye bath frequently (every 2 to 5 minutes). To stir fabric, wear rubber gloves and lift the fiber from the dye bath. Unfold the creases, and return the fiber to the bath in a different configuration. To stir yarn, use two stainless steel, Plexiglas or wooden stir sticks. Gently slide one stick into the skein near a cross-tie and lift above the dye bath. With the other stick, pick up a different point of the cross-tie on the skein. Remove the first stick and use that stick to redirect the yarn back into the dye pot in a different pattern.

General amounts of dye, salt and soda ash per 3 gallons of water and one pound of fabric:

For very pale shades: $\frac{1}{4}$ to $\frac{1}{2}$ teaspoon dye, $\frac{1}{2}$ cups salt, $\frac{1}{4}$ cup soda ash

For light shades: $\frac{1}{2}$ to 1 teaspoon dye, $\frac{1}{2}$ cups salt, $\frac{1}{4}$ cup soda ash

For medium shades: I tablespoon dye, $1\frac{1}{2}$ cups salt, $\frac{1}{4}$ cup soda ash

For darker shades: 2 tablespoons dye, 2 cups salt, 1/4 cup soda ash

For darkest shades: 4 tablespoons dye, 3 cups salt, $\frac{1}{3}$ cup soda ash

Immersion Dyeing Cellulose Fibers

For one pound dry weight of fabric or fiber (3 to 6 square yards of fabric or 3 T-shirts)

Materials:

- 3 gallons of warm water (105° F)
- Procion® MX dye (see above in for amounts)
- 1/4 to 1/3 cup of soda ash
- 1¹/₂ to 3 cups of salt (non-iodized)
- \bullet Synthrapol® for prewashing and post-rinsing

Two methods of dyeing follow:

Be sure to prewash fabric to remove any dirt, grease or sizing. We suggest using Synthrapol®.

Method One:

- 1. Fill container (such as a 5 gallon plastic bucket) with 3 gallons of warm (105° F) tap water. Add salt and dye in proportions listed in the general dye amounts above.
- 2. Add the fabric or fiber.
- 3. Stir frequently for 10 to 15 minutes.
- 4. Remove or lift up the fabric.

- 5. Add the soda ash. (It helps to dissolve the soda ash in a separate container in a little hot water first.) Stir into dye bath.
- 6. Put the fabric back into dye bath and stir frequently for 30 to 60 minutes, (depending on the depth of intensity desired).

Rinsing:

- While wearing gloves, rinse the dyed fiber first with cool water, then with increasingly warmer water.
- After 3 or 4 rinses, when the water is nearly clear, prepare a soap soak. Use 2 to 3 gallons of very warm tap water and 1½ teaspoons of **Synthrapol**[®]. The fiber should sit in this soap bath for 5 to 10 minutes.
- Rinse 3 or 4 additional times with warm water.
- Using either Jacquard's Dyeset Concentrate or Jacquard's iDye Fixative during the initial rinse will further ensure long lasting colors.

Method Two:

- I. Fill container with 3 gallons of warm (105° F) tap water, add dye and stir.
- 2. Add the fabric or fiber.
- 3. Add the salt in 3 equal parts at 5 minute intervals. If dyeing a deep shade of blue or a full black, use twice the amount of salt, (adding it in 2 equal parts at 15 minute intervals) while still stirring the dye bath frequently.
- 4. Add the soda ash in 2 equal parts at 15 minute intervals, while still stirring the dye bath frequently. (It helps to dissolve the soda ash in a separate container in a little hot water first.)
- 5. Dye for 30 to 60 minutes after the last soda addition.

Rinsing:

- While wearing gloves, rinse the dyed fiber first with cool water, then with increasingly warmer water.
- After 3 or 4 rinses, when the water is nearly clear, prepare a soap soak. Use 2 to 3 gallons of very warm tap water and 1½ teaspoons of Synthrapol[®]. The fiber should sit in this soap bath for 5 to 10 minutes.
- Rinse 3 or 4 additional times with warm water.
- Using either Jacquard's Dyeset Concentrate or Jacquard's iDye Fixative during the initial rinse will further ensure long lasting colors.

Washing Machine Dyeing for Cellulose Fibers

For 3 to 5 pounds of fabric (5 to 7 yards of fabric or 8 to 10 T-shirts)

Be sure to prewash fabric to remove any dirt, grease or sizing. We suggest using Synthrapol®.

Materials:

- Standard top-loading or front loading washing machine
- Procion® MX dye (double the amounts for Immersion dyeing listed in the immersion directions)
- 2 cups soda ash (3 cups for darker shades)
- 6-8 cups plain salt (non-iodized)
- + 2 tablespoons $\mathsf{Synthrapol}^{\texttt{®}}$ for prewashing and post-rinsing

Steps

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For top-loading machine:

- 1. Fill washing machine to medium load (approx. 6-8 gallons) with hot water. Add salt and dye, and agitate for 5 min., until both are dissolved.
- 2. Place wet fabric in machine and agitate for 20 minutes.

- 3. Place wet fabric in machine and agitate for 20 minutes. (The wash cycle needs to be extended, without the dye being drained or more water added, by turning the machine off and resetting at beginning of wash cycle.)
- 4. In a separate container dissolve soda ash in 1 quart hot water. Gradually add to dye bath in 3 parts at 5 minute intervals, being careful not to pour directly onto fabric.
- 6. Agitate for 50 minutes (30 minutes for pastels).
- 7. Let machine drain the dye bath and complete the rinse cycle. To remove any remaining dye, run through a complete wash cycle with warm water and **Synthrapol**®.

For front-loading machine:

- I. Set washing machine to smallest load appropriate to amount of fabric. Use hottest water setting.
- 2. In separate containers pre-dissolve: the salt in approximately ½ gallon of hot water, the dye in approximately ½ cup to 1 cup of hot water and the soda ash in approximately ½ gallon of hot water.
- 3. Pour salt, dye and soda ash into the washing machine.
- 4. Place wet fabric in the machine and (choosing the longest cycle available) start the machine. If your machine allows, extend the wash cycle before the dye bath drains.
- 5. Agitate for as long as your machine allows, up to 50 minutes (30 minutes for pastels).
- 6. Let machine drain the dye bath and complete the rinse cycle. To remove any remaining dye, run through a complete wash cycle with hot water and **Synthrapol**[®].

Note: After dyeing in your washing machine we recommend cleaning the machine per the manufacturers recommended method and then running a short cycle of clear water before the next use. This is especially important with front-loading machines, because they will often hold liquids in the seal around the door or in the exterior tub of the washer.

Immersion Dyeing for Protein Fibers

Wool yarn, fabric, fleece and all animal hair fibers are dyed with this method. Silk, yarn and fabric are dyed using the protein method, but the dye bath is run at 100°F rather than heated. Please keep in mind that dye colors can shift (change) when using with protein fibers.

For one pound dry weight of fabric or fiber (3 to 6 square yards of fabric or 3 T-shirts)

Be sure to prewash fiber to remove any dirt, grease or sizing. We suggest using Synthrapol®.

Materials:

- 3 gallons of warm water (105° F) (use cool water for wool)
- Procion® MX dye (see above for general amounts)
- $1\frac{1}{2}$ to 3 cups of salt (non-iodized)

- ¼ cup 5% acetic acid (white vinegar) per pound of fiber
- Synthrapol[®] for prewashing and post-rinsing

Steps:

I. In a stainless steel or enamel pot, add water, dye and salt. Stir to dissolve.

- 2. Place pot on stove and stir.
- 3. Add pre-wetted fiber.
- 4. Raise the temperature over a 15 minute time span to simmer, stirring frequently. If you are dyeing wool, a gradual heating and gradual cooling of the dye bath is important so as not to shock and felt the wool.
- 5. Remove or lift out the fiber, add the vinegar and stir.
- 6. Return the fiber to the dye bath. Stir frequently at a simmer (about 180° to 195° F) for 30 to 45 minutes.
- 7. Allow to cool before rinsing.

Rinsing:

For wool or other fibers that may felt, use only cool water in each rinse as well as the soap soak. Gentle handling during rinsing is also important to reduce the possibility of felting.

- While wearing gloves, gently rinse the dyed fiber with cool water.
- After 3 or 4 rinses, when the water is nearly clear, prepare a soap soak. Use 2 to 3 gallons of cool tap water and 1½ teaspoons of **Synthrapol®**. The fiber should sit in this soap bath for 5 to 10 minutes.
- Rinse 3 or 4 additional times with cool water.
- Using of either Jacquard's Dyeset Concentrate or Jacquard's iDye Fixative during the initial rinse will further ensure long lasting colors.

Washing Machine Dyeing for Protein Fibers

Be sure to prewash fiber to remove any dirt, grease or sizing. We suggest using Synthrapol®.

For 3 to 5 pounds of fabric (5 to 7 yards of fabric) NOT RECOMMENDED FOR WOOL YARN, FABRIC, FLEECE OR OTHER ANIMAL HAIR FIBERS.

Materials:

- Standard top-loading washing machine
- Procion® MX dye (double the amounts for Immersion dyeing listed in the Immersion directions)
- I to 3 cups of 5% acetic acid (white vinegar) depending on the volume of water
- 6 to 8 cups plain salt (non-iodized)

For top-loading machine:

- I. Set washing machine to smallest load appropriate to amount of fabric. Use hot water setting.
- 2. In separate containers pre-dissolve: the salt in approximately ½ gallon of water of hot water and the dye in approximately ½ cup to 1 cup of hot water.
- 3. Place wet fabric in machine and agitate for 20 minutes. (The wash cycle needs to be extended, without the dye being drained or more water added, by turning the machine off and resetting at beginning of wash cycle.)
- 4. Gradually add vinegar to dye bath, being careful not to pour directly onto fabric.
- 5. Agitate for 50 minutes (30 minutes for pastels).
- 6. Let machine drain the dye bath and complete the rinse cycle. To remove any remaining dye, run through a complete wash cycle with cool water and **Synthrapol**[®].

For front-loading machine:

- I. Set washing machine to smallest load appropriate to amount of fabric. Use hot water setting.
- 2. In separate containers pre-dissolve: the salt in approximately ½ gallon of water of hot water and the dye in approximately ½ cup to 1 cup of hot water.
- 3. Pour salt, dye and vinegar into the washing machine.
- 4. Place wet fabric in the machine and (choosing the longest cycle available) start the machine. If your machine allows, extend the wash cycle before the dye bath drains.
- 5. Agitate for as long as your machine allows up to 50 minutes (30 minutes for pastels).
- 6. Let machine drain the dye bath and complete the rinse cycle. To remove any remaining dye, run through a complete wash cycle with cool water and **Synthrapol**[®].

Note: After dyeing in your washing machine we recommend cleaning the machine using the manufacturer's recommended method and then running a short cycle of clear water before the next use. This is especially important with front-loading machines because they will often hold liquids in the seal around the door or in the exterior tub of the washer.

Silkscreen Printing & Hand-Painting

There are 11 standardized colors (see <u>hints and tips</u> for list) in the Procion MX line. All other colors, no matter the manufacturer, are mixed formulas of two or more of these standardized colors. We offer a broad range of colors for your convenience, but the ultimate dyer only needs to stock the standardized colors.

Directions for Cellulous Fabrics

Preparing Dye Thickener

When screen printing with dye thickened with sodium alginate, the print base should be as thin as the image will allow. Dye printed in too thick a base will halo from the image before the fabric is cured or will accumulate in the corners, altering the image. SH is a high viscosity, low solids type of alginate thickener used primarily for cotton and other cellulose fibers. It may also be used for silk when fine line definition is not required.

Materials:

- Wide mouth quart jar
- Measuring spoons
- 4 teaspoons sodium alginate SH

- 2/3 cup tablespoons urea
- I teaspoon Calgon
- $1\frac{1}{2}$ cups hot water

Mix at least 2 hours before actual use.

Steps:

- I. Mix the *Calgon* and *urea* together in the jar.
- 2. Add the hot water.
- 3. Slowly add the sodium alginate SH, stirring constantly. Stir until dissolved.
- 4. Add cool water until the mixture is no longer stiff but is not runny. This should make about I quart.
- 5. Cover, label and store in the refrigerator.

Standard Method

Be sure to prewash fiber to remove any dirt, grease or sizing. We suggest using Synthrapol®.

The traditional method of printing or painting with fiber reactive dye is to add baking soda (sodium bicarbonate) to a thickener paste. This method can be used for screen printing, hand-painting, warp-painting, airbrush, stamping and all other direct application techniques. It is important to prepare the fiber by washing to remove the sizing.

Steps:

- I. Iron clean, dry fabric.
- 2. Prepare dye thickener paste per instructions above. Add ½ teaspoon baking soda to ½ cup thickener paste. The baking soda activates the dye reaction. Activated paste will remain usable for only 4 hours and then must be replaced with freshly activated paste.
- 3. Divide the activated paste into several containers. Add ½ to 2 teaspoons of dye per ½ cup thickener. Proportion the dye in each container in relation to the amount of thickener paste and desired intensity.
- 4. Print, paint, stamp or brush on fabric.
- 5. Air dry completely.
- 6. Steam set in a steam chamber or professional fabric steamer. See "<u>Steam Method</u>" in the **Setting Screen Printed and Hand Painted Fabrics** section below for more information.

Pre-soak Method

Be sure to prewash fiber to remove any dirt, grease or sizing. We suggest using Synthrapol®.

Fiber soaked in its chemical assistants (soda ash for cellulous fibers/vinegar or citric acid for protein fibers) readily accepts the Procion MX dye. When printed or painted on fibers, the dye bonds with the fiber as in immersion dyeing. After the dye reaction is complete and the printing medium is removed (by washing), the fiber retains its resilience and hand.

The quantity of dye added to the printing paste will determine the intensity of the printed or painted color. $\frac{1}{2}$ teaspoon to 2 teaspoons of powdered dye to ½ cup thickener is the standard range, with I teaspoon being the medium to dark shade. Handpainting paste is made by thinning printing paste with a urea water solution ($\frac{1}{2} \exp + 2 T Calgon$ to I quart water).

Steps:

- I. For one pound of fiber, pre-soak in a solution of I gallon of water and I cup soda ash for 15 to 30 minutes. Do not rinse. Squeeze out excess solution, air dry and iron OR leave wet.
- 2. Print or paint with the thickened dye solution. We recommend experimentating to find the quantity of dye for the color brilliance necessary. The dye will be transparent: that is, the color of the underneath fabric will blend with the dye. Red fabric printed with green will be brown. Unbleached muslin will tone down the dye colors.
- 3. Set by batch method or by steaming. See Setting Screen Printed and Hand Painted Fabrics below for more information.

Setting Screen Printed and Hand Painted Fabrics

Batch Method

The Procion MX fiber reactive dye will react with the fiber only while it is damp.

- I. While the fabric is still wet, place printed or painted fabric between two large sheets of plastic. Lay more damp fabric on top, making certain that the moisture will not directly contact the printed fabric.
- 2. Loosely roll the fabric and plastic into a large bundle.
- 3. Place bundle inside a large trash bag. Close the bag with an air pocket inside. Allow to sit for 8 to 48 hours for the dye to react.
- 4. Rinsing: For wool or other fibers that may felt, use only cool water in each rinse and the soap soak. Gentle handling during rinsing is also important to reduce the possibility of felting.
- While wearing gloves, rinse the dyed fiber first with cool water, then with increasingly warmer water.
- After 3 or 4 rinses, when the water is nearly clear, prepare a soap soak. Use 2 to 3 gallons of very warm tap water and $1/_{2}$ teaspoons of **Synthrapol**[®]. The fiber should sit in this soap bath for 5 to 10 minutes.
- Rinse 3 or 4 additional times with warm water.
- Using of either Jacquard's Dyeset Concentrate or Jacquard's iDye Fixative during the initial rinse will further ensure long lasting colors.

Steam Method

You can steam your fabric in a professional fabric steamer, or you can make your own steamer out of the materials listed below. Keep in mind that the quantity of fabric may dictate which type of method and steamer to use.

See http://jacquardproducts.com/ downloads/instructions/Home Made Fabric Steamer Instructions.pdf for more information about building your own steamer.

Rinsing:

- While wearing gloves, rinse the dyed fiber first with cool water, then with increasingly warmer water.
- After 3 or 4 rinses, when the water is nearly clear, prepare a soap soak. Use 2 to 3 gallons of very warm tap water and $1/_{2}$ teaspoons of **Synthrapol®**. The fiber should sit in this soap bath for 5 to 10 minutes.
- Rinse 3 or 4 additional times with warm water.
- Using of either Jacquard's Dyeset Concentrate or Jacquard's iDye Fixative during the initial rinse will further ensure long lasting colors. Back to top

Batik

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Procion® MX dye is the best dye for batik because brilliant colors can be achieved in a dye bath cool enough not to remove the wax. Batik is an additive color process that plays upon the transparency of dye.

Materials:	
 100% cellulose fiber fabric, prewashed and ironed 	Container for heating wax
• Fabric stretcher frame	• Dyes, chemicals and supplies for dyeing
• Jacquard Beeswax, Paraffin, Soy, or Batik Wax	• Electric deep fryer or frying pan
• Tjanting tools, brushes, or other wax application tools	Pencil or Jacquard Auto Fade Pen

Steps:

Be sure to prewash fiber to remove any dirt, grease or sizing. We suggest using Synthrapol®.

- I. Stretch washed fabric on the stretcher. Lightly sketch design with a pencil or Jacquard Auto Fade Pen.
- 2. Melt the Jacquard Batik Wax, a mixture of beeswax and paraffin, or the soy wax. A deep fryer or electric frying pan are the most desirable tools for melting wax, because they reduce the risk of fire by maintaining a constant temperature. The wax mixture may ignite if it is too hot. If the wax mixture is smoking, then it is too hot. See http://www.jacquardproducts.com/ products/wax/ for melting point information for the waxes.
 - Alone, pure paraffin is too brittle and pure beeswax is too supple to give good crackle effects. 60% beeswax to 40% paraffin blend is a good place to start. To alter the crackle effect, change the ratio of beeswax to paraffin.
 - Soy wax is a fairly delicate wax and creating the crackle effect is difficult; however, the benefit offered in the ease of removal of the soy wax may well offset the loss of the crackle. Multi-layer dyeing using soy wax will require reapplication of soy wax because of its more brittle nature.
- 3. Using the tjanting tool, brushes, or other application tool, apply the hot wax to all the lines and areas which will remain white. Think of the wax application step as a process of retaining color rather than adding color. Let the tool you are using sit in the hot wax until it becomes the temperature of the wax.
- 4. The wax should penetrate the fabric. If the wax turns white and sits on the fabric, then it will not resist the dye. Raise the temperature of the wax and reapply.
- 5. When the wax is cool, run through a standard immersion dye bath using cool water. Don't make the water too cold or too hot. Room temperature is fine.
- 6. Lay the fabric flat to dry.
- 7. The dye process may have removed some wax from the fabric (especially when using soy wax). Carefully check for this and reapply wax to those areas.
- 8. Apply wax to the areas which are to retain the color dyed (step 4). When the wax is cool, you may dye with your next color. Remember that Procion MX dye is transparent. If the first dye bath was yellow, a second dye bath of pale red will produce orange fabric in the non-waxed areas. If the third dye bath is blue, the unwaxed orange areas will become brown.
- 9. Repeat steps 4 through 7 until the design is complete.
- 10. For Jacquard Batik, or paraffin & beeswax mixtures remove the wax by one of the following methods:
 - Crumble and abrade the surface to remove excess wax. Remove remaining wax by immersing fabric in simmering water, then cold water. Repeat the immersions until the wax is removed. If too much wax accumulates on the surface of the hot water, the fabric will pick up wax rather that dispose of wax. Ladle excess wax into another container to cool. A final immersion in fresh hot water will remove the last traces of wax. Any remaining wax can be removed with dry cleaning. All wax that was removed can be reused. **Never pour hot wax filled water down the drain or it will clog it.** This method does result in some loss of color.

- Iron the piece between sheets of unprinted newsprint. The newsprint will absorb the wax. You will have to refresh the newsprint when it gets saturated with wax. There will be residual wax with this method, but dry cleaning may remove the last of wax.
- 11. For soy wax removal; immerse fabric into a tub of VERY hot water with about 1 teaspoon of **Synthrapol®**. Agitate until the wax is dissolved then rinse in very warm water. It may take more than one hot water bath to completely remove all the wax.

Note: Newer, 'green' dry cleaners may not be able to remove residual wax.

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Dyeing Reed, Rattan & Wood with Procion MX Dyes

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Dyeing Reeds and Rattan

- I. The reeds usually come tightly coiled and should be re-tied loose enough for the dye to flow between them.
- 2. Soak the reeds in hot water for I hour to overnight to clean them and to wet them for dyeing.
- 3. Prepare the dye bath:
 - I gallon hot water
 - I tablespoon Procion MX dye pasted
 - 1/2 cup plain salt (non-iodized)

Stir until mixed.

- 4. Put the wet reeds into the dye bath and stir (turn coils over) every 10 minutes.
- 5. When the reeds have absorbed the dye enough to be the color you want (the reeds will dry to a shade 1/2 as dark as when wet) add 1/3 cup soda ash dissolved in 1 cup hot water to fix the dye.
- 6. Leave reeds in dye bath for up to 2 hours after adding soda ash.
- 7. Rinse reeds under cold, running water.

Dyeing Wood

- **Tub Dye Method:** The wood can be dyed according to the standard Procion MX immersion dyeing instructions and left to set in the dye bath for 12 hours after the soda ash has been added.
- **Direct Application Method:** Apply the dye, soda ash and water directly to the wood as in the standard tie dye. Let the wood set 4 to 24 hours and rinse.

These are just two of many methods that can be used to apply dyes to wood.

Although Procion® MX dyes were not developed specifically for dyeing wood, pastel and watercolor effects can be achieved on untreated wood. Sometimes the addition of a small amount of ethyl alcohol (rubbing alcohol from the drug store) will greatly increase the penetration of the dye solution into the wood.

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Hints & Tips for Dyeing with Procion MX Dyes

Safety Considerations

- Always wear rubber gloves.
- Wear a NIOSH/MSHA dust mask or respirator when working with dry powders. Inhaling the dye powder or soda ash in large quantities may cause serious health problems.
- Use measuring cups, spoons and utensils for dyeing only. Don't mix with kitchen utensils.

Standardized Colors

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Standardized Color List:

- PMX004 Lemon Yellow
- PMX020 Brilliant Orange
- PMX034 Magenta
- PMX040 Fuchsia
- PMX068 Turquoise
- PMX070 Cerulean Blue
- **Dyeing with Procion MX Dyes**
 - · Dye spilled on surfaces can be cleaned with bleach or household cleansers.
 - Use a hand cleaner, such as **Reduran** to remove dye from skin. Do not use bleach since it dissolves protein (like your skin!).
 - For an even take-up of dye in immersion dyeing, soak the fiber in clear water for at least 15 minutes to wet completely. If the fiber has been washed, do not dry, move directly to dyeing.
 - **Synthrapol**[®] is a more effective washing agent than regular soap, especially when turquoise, fuchsia and any color mixes containing these dye colors are used. These colors require increased time and care in washing out the excess dye. Often several hot soap soaks are necessary.
 - Mix powdered dye with a small amount of water to form a paste when dissolving. After all lumps are removed, gradually add more water until the dye is thoroughly dissolved. For quicker pasting, add 2 drops of **Synthrapol**[®] before adding the water.
 - Because of the nature of dyestuffs (some being denser than others) dye colors will vary in volume when measured by weight.
 One may certainly measure by volume (by the teaspoon or tablespoon), however, if you intend to recreate specific tones or hues we recommend measuring by weight.
 - Altitude, water quality (mineral or chlorine content), humidity, dye bath temperature, brand and purity of vinegar and/or soda ash can all influence the dye process. Perfume, whiteners and brighteners in household detergents and soaps can totally change the dye color. Two seemingly identical runs can have quite different results if any of these variables change.

Rinsing Procion MX Dyes

For wool or other fibers that may felt use only cool water in each rinse as well as the soap soak. Gentle handling during rinsing is also important to reduce the possibility of felting.

- I. While wearing gloves, rinse the dyed fiber first with cool water, then with increasingly warmer water.
- 2. After 3 or 4 rinses, when the water is nearly clear, prepare a soap soak. Use 2 to 3 gallons of very warm tap water and 1¹/₂ teaspoons of **Synthrapol**[®]. The fiber should sit in this soap bath for 5 to 10 minutes.
- 3. Rinse 3 or 4 additional times with warm water.
- 4. Using either Jacquard's Dyeset Concentrate or Jacquard's iDye Fixative during the initial rinse will further ensure long lasting colors.
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- PMX072 Medium Blue
- PMX076 Cobalt Blue
- PMX128 Warm Black
- PMX231 Violet
- PMX232 Bright Blue