



PO Box 14 • Somerset, MA 02726
orders 1-800-2-BUY-DYE
technical support 508-676-3838
fax 508-676-3980
e-mail • promail@prochemical.com
www.prochemical.com

Direct Application on Wool and Silk using PRO MX Reactive Dyes

Please read directions carefully before starting

This process allows you to use the MX Reactive Dyes to hand paint, stamp, stencil and screen print on wool and protein fibers. Keep in mind that some of these MX colors dye wool better than others, producing beautiful, but sometimes unexpected results. Always do test samples before working on a large project. For additional information, visit our website at www.prochemical.com

- ✘ Wear rubber gloves, apron, or old clothes.
- ✘ Utensils used for dyeing should never be used for food preparation.

Supplies

PRO MX Reactive Dye
Synthrapol
Citric Acid Crystals
Wool Dye Assistant SBS
Urea
PRO Print Paste Mix SH
clear household ammonia (non-sudsy)
white distilled vinegar

Procedure

1. Wet out the wool. Measure 2 ½ gallons (10 liters) of warm 110°F (43°C) water, for each pound (454 gm) of wool, by using ½ tsp (2.5 ml) of Synthrapol. Soak for 30 minutes. Squeeze out the excess water before soaking in the Acid Soak solution. There is no need to rinse.

2. Make the Acid Soak Solution. Choose one of the methods below. Measure the water from the chart below into a large plastic bucket. Dissolve the Citric Acid Crystals or white distilled vinegar in the water. Add the Synthrapol and stir thoroughly.

| Method #1 - Citric Acid Crystals | Method #2 - White Distilled Vinegar |
|---------------------------------------|---|
| 1 gallon (4 liters) 95°F (35°C) water | 2 quarts (2 liters) 95°F (35°C) water |
| 11 Tbl (193 gm) Citric Acid Crystals | 2 quarts (2 liters) white distilled vinegar |
| 2 tsp (10 ml) Synthrapol | 2 tsp (10 ml) Synthrapol |

Soak yarn or fleece in solution for 10 to 15 minutes, with occasional stirring. This soak solution can be kept and reused.

3. Make the Print Paste. (This step is optional. If you do not want to thicken your dye, move on to Step 4.) Measure 5½ Tbl (55 gm) PRO Print Paste Mix SH into a dry container. Measure 1 cup (250 ml) of warm 110°F (44°C) water into another container. Add measured PRO Print Paste Mix to the water while stirring rapidly. Continue stirring until you obtain a smooth paste. Let paste stand 1 hour or overnight for smoothest results. Unused paste should be kept in a closed container. Store prepared print paste without dye up to six months. Discard print paste if you detect an ammonia odor.

4. Make the Urea Water by mixing 9 Tbl (100 gm) Urea and 1 quart (1 liter) warm 110°F (43°C) water. Stir well until urea is thoroughly dissolved. It is important to let the urea water cool to room temperature before using.

5. Dissolve the dye. Measure the desired amount of dye powder from the chart below in a one cup measure. Dissolve the dye powder with approximately ¼ cup (60 ml) Urea Water and stir thoroughly.

| | | | | |
|------------|--------------|--------------|---------------|---------------|
| | Pale | Medium | Dark | Black |
| Dye Powder | ½ tsp (1 gm) | 2 tsp (5 gm) | 4 tsp (10 gm) | 8 tsp (20 gm) |

6. Make the Dye Paint. Decide if you want to paint with an unthickened or thin dye paint.

| Unthickened Dye Paint | Thin Dye Paint |
|-------------------------------------|-------------------------------------|
| Dissolved dye powder | Dissolved dye powder |
| No Print Paste | 1 to 2 tsp (5 to 10 ml) Print Paste |
| Urea water to make 1 cup (250 ml) | Urea water to make 1 cup (250 ml) |
| ½ tsp (1 gm) Wool Dye Assistant SBS | ½ tsp (1 gm) Wool Dye Assistant SBS |

Stir until thoroughly mixed.

7. Apply the design. The Dye Paint is now ready to use on your acid soaked wool. If the wool does not absorb the dye quickly, add 3 to 4 drops of Synthrapol to the dye paint for increased dye penetration. Paint your design on the wool. Discard any leftover dye paint after 3 to 4 days.

8. Fix the dye, by covering your wool with plastic (a black plastic bag works great) to prevent the wool from drying out. Allow the dyes to cure for 24 hours or longer. The temperature of the room must be above 70°F (21°C). The warmer the “cure” temperature, the darker the final color.

9. Rinse well in room temperature water and squeeze out excess water.

10. Make the after soak. Mix 2 Tbl (30 ml) of ammonia in one gallon (4 liters) of room temperature 75° to 95°F (24° to 35°C) water. Wearing rubber gloves, swish your wool around in the ammonia water for 3 to 5 minutes. Rinse in room temperature 75° to 95°F (24° to 35°C) water. Don't be alarmed if there is color in this after soak.

11. Neutralize the wool. Mix 1 tsp (5 ml) of Acetic Acid 56% or 11 tsp (55 ml) white distilled vinegar in 1 gallon (4 liters) of room temperature 75° to 95°F (24° to 35°C) water. Wearing rubber gloves, swish your wool around in this vinegar water as your final rinse. Squeeze out the excess water and air dry.