



Direct Application on Polyester using PROspperse Disperse Dyes

Please read the directions carefully before starting.

For screen printing, block printing, stenciling, and hand painting on 100% polyester and polyester/cotton blends, using thickened dye paint for pattern control. Use Pyrex or stainless steel measuring utensils. Provide good VENTILATION DURING THE ENTIRE DYE PROCESS! Always do test samples before working on a large project. Please Note: These dyes have the potential to stain any sink that is not made of stainless steel or fireclay ceramic. For additional information, visit our web site at www.prochemicalanddye.com.

- ✖ Wear rubber gloves, apron, or old clothes.
- ✖ Utensils used for dyeing should not be used for food preparation.

Please note: if you find that the Dye Carrier has thickened or developed sediment on the bottom of the container, put it in a heat-proof container and re-heat it in a hot water bath on top of the stove. Shake well before using.

Supplies

Polyester

PROspperse Disperse Dye
PRO Dye Carrier NSC
Metaphos
Citric Acid Crystals
PRO Thick F
Ludigol (formerly PRO Chem Flakes)
PRO Dye Activator or Soda Ash
Synthrapol

Polyester/Cotton Blend

PROspperse Disperse Dye
PRO MX Reactive Dye
Metaphos
PRO Thick F
Ludigol (formerly PRO Chem Flakes)
Urea
Baking soda (Sodium Bicarbonate)
PRO Dye Activator or Soda Ash
Synthrapol

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 of muslin weight fabric). This step does not add the dye fixative to the fabric; it prepares your fabric for dyeing by removing any dirt, oil or sizing.

Removing Permanent Press finish: Check to see if your poly/cotton blend has a permanent press finish. If so, you'll need to remove it prior to dyeing. If you are dyeing 100% polyester, then skip this step. It is very important to use rubber gloves and protective eye wear when handling acid. Use extra caution!!!

Measure 2 gallons (8 liters) of cool water in a stainless steel or enamel pot. CAREFULLY add 1 Tbl (15 ml) of hydrochloric (muriatic) acid that is 30% to 35% strength.

Add the scoured fabric and heat to 185°F (85°C). Stir intermittently while the temperature is rising. Hold at 185°F (85°C) for 20 minutes and stir intermittently.

Rinse the fabric thoroughly in warm 110°F (43°C) water.

2. Make the Stock Thickener Paste. Measure 10 tsp (26 gm) PRO Thick F into a dry container and set aside. Measure 1 quart (1 liter) of warm 120°F (49°C) water into a 2 quart (2 liter) container.

100% Polyester Thickener Paste	Polyester/Cotton Thickener Paste
<p>While stirring the water rapidly, slowly add:</p> <p>1 tsp (7 gm) Metaphos $\frac{3}{4}$ tsp (1.7 gm) Ludigol the pre-measured PRO Thick F</p> <p>Stir until thoroughly mixed. Stir intermittently until a smooth paste is obtained; this usually takes 45-60 minutes. Let stand overnight for smoothest results. Store unused paste in a closed container. Paste without dye can normally be stored up to 6 months without refrigeration.</p>	<p>While stirring the water rapidly, slowly add:</p> <p>1 tsp (7 gm) Metaphos $\frac{3}{4}$ tsp (1.7 gm) Ludigol 6 tsp (24 gm) Urea the pre-measured PRO Thick F</p> <p>Stir until thoroughly mixed. Stir intermittently until a smooth paste is obtained; this usually takes 45-60 minutes. Let stand overnight for smoothest results. Store unused paste in a closed container. Paste without dye can normally be stored up to 6 months without refrigeration. Discard paste if you detect an ammonia smell.</p>

3. Dissolve the dye. Thoroughly dissolve the desired amount of dye powder, from the chart below, in 1 cup (188 ml) 80°F to 90°F (27° to 32°C) water. Let mixture cool to room temperature and stir well again. Before adding to the dye paint, strain it through two layers of old nylon stockings.

	Pale	Medium	Dark	Black
Disperse Dye	1 tsp (2.5 gm)	2 tsp (5 gm)	3 tsp (7.5 gm)	5 tsp (12.5 gm)

4. Make the dye paint.

100% Polyester Dye Paint	Polyester/Cotton Blend Dye Paint
<p>Mix thoroughly together the ingredients below, in the order listed:</p> <p>½ cup (120 ml) 100% Polyester Thickener Paste $\frac{1}{8}$ tsp (0.7 gm) Citric Acid Crystals 5 tsp (25 ml) Dye Carrier NSC dissolved and strained Disperse Dye</p>	<p>Mix thoroughly together the ingredients below, in the order listed:</p> <p>½ cup (120 ml) Poly/Cotton Thickener Paste 1 tsp (4.1 gm) baking soda dissolved and strained Disperse Dye 1 tsp (2.5 gm) PRO MX Dye</p>

5. Hand paint, screen paint, block print or stencil on fabric that is scoured and dried.

6. Allow painted and printed areas to air dry thoroughly, 4 to 24 hours.

7. Set the dye. For small areas of pattern, the dyes may be set with an iron that is set near the top of the polyester range. Iron for 3 to 5 minutes, with a press cloth between the fabric and the iron. For large patterns or yardage, set by steaming at 212°F (100°C) for 30-60 minutes. You can also pressure steam for 20-30 minutes at 20-28 lb per square inch (1.4-2.0 kg per square centimeter).

8. Rinse the fabric in warm water. Then wash in HOT 140°F (60°C) water, adding ½ tsp (2.5 ml) of Synthrapol per pound (454 gm) of fabric. Rinse well. Smell the fabric. If you detect the odor of the carrier in the fabric, repeat this step. If you don't detect the odor, finish by drying the fabric.

The Dye Carrier NSC is essential to achieve dark shades but is optional to use in the dye paint for pale to medium shades. Keep in mind that you'll get a darker color dyeing a pale to medium shade if you include Dye Carrier NSC in the dye paint.

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