

# Immersion Dyeing Polyester using PROperse Disperse Dyes

Please read the directions carefully before starting.

*All dyeing should be done in a stainless steel or enamel container. Never use aluminum pots. Use Pyrex or stainless steel measuring utensils and a large wooden dowel for stirring the boiling dye bath. PROVIDE GOOD VENTILATION DURING THE ENTIRE DYE CYCLE! 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](http://www.prochemicalanddye.com).*

- ✖ Wear rubber gloves, apron or old clothes.
- ✖ Utensils used for dyeing should never 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

PROperse Disperse Dye  
PRO Dye Carrier NSC  
Metaphos (optional, but use if you have hard water)  
Citric Acid Crystals or White Distilled Vinegar  
Synthrapol  
PRO Dye Activator or Soda Ash

## 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). 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.

## Immersion Dyeing for 1 pound (454 gm) of 100% Polyester

	Pale	Medium	Dark	Black
Dye Powder	½ tsp (1.3 gm)	1½ tsp (3.8 gm)	3 tsp (7.5 gm)	6 tsp (15 gm)

**2. Dissolve the dye.** Thoroughly dissolve the desired amount of dye powder, from the chart above, in 1 cup (250 ml) of boiling water. Let mixture cool to room temperature and stir well again. Before adding to dye bath, strain it through two layers of old nylon stockings.

**3. Dilute the Dye Carrier NSC** by mixing 2 Tbl (30 ml) of carrier into 1 cup (250 ml) of boiling water.

**4. Prepare the dye bath** below in a non reactive, stainless steel or enamel pot. Add ingredients in the order listed below.

To 2½ gallons (10 liters) of 120°F (49°C) water add:

½ tsp (2.5 ml) Synthrapol

1 tsp (5 ml) Citric Acid Crystals or 11 tsp (55 ml) white distilled vinegar  
diluted Dye Carrier NSC from Step 3

½ tsp (3.5 gm) Metaphos (optional, but use if you have hard water)  
dissolved and strained PROspere Disperse Dye

Stir well after adding each ingredient.

**5. Stir well** and add the scoured damp fabric.

**6. Bring the dye bath rapidly to a boil (212F/100C)**, while stirring constantly. Simmer 30 minutes for pale shades and up to 45 minutes for black, stirring intermittently and gently to prevent the fabric from creasing or distorting. While dye bath is going, bring another pot of water to a minimum temperature of 180°F (82°C).

**7. Rinse the fabric.** Remove the fabric from the dye pot and immediately plunge it into the pot of 180°F (82°C) water. Water below this temperature leaves residual Dye Carrier NSC crystals and an unpleasant odor in the fabric which is VERY difficult to remove.

**8. Wash the fabric.** Discard the dye bath down the drain and refill the pot with 160°F (71°C) water. Add ½ tsp (2.5 ml) Synthrapol. Transfer fabric from the first rinse pot to this wash pot. Stir intermittently for 5 to 10 minutes.

**9. Rinse in hot water** and extract excess water. Smell the fabric. If you detect the odor of the carrier in the fabric, repeat steps 7 and 8. If you don't detect the odor, finish by drying the fabric.

<p>The Dye Carrier NSC is essential to achieve dark shades but is optional to use in the dye bath 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 bath.</p>
--