

# Immersion Dyeing

## using PRO H-Reactive Dyes

(Powder or Liquid)

Please read directions carefully before starting.

*For Solid Shade dyeing on Cotton, Linen, Rayon and Silk. Always do test samples before working on a large project. For additional information, visit our website 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.

### Supplies

PRO H-Reactive Dye (powder or liquid)  
 Ludigol (formerly known as PRO Chem Flakes)  
 Synthrapol SP  
 Common salt  
 Metaphos (optional; use if you have hard water)  
 PRO Dye Activator or Soda Ash

### Procedure

**1. Scour the fabric** by machine washing in HOT 140F (60C) water, or by hand in a pot on the stove with 2 tsp (2 gm) PRO Dye Activator or Soda Ash and 2 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. Dissolve dye powder.** Measure the dissolve desired amount of dye powder, from the chart below, in 2 cups (500 ml) room temperature 75F to 95F (24F to 35C) water and set aside.

**For each pound (454 gm) of dry fabric use:**

	Light	Medium	Dark	Black
Common salt	1 lb (2 cups)	1½ lb (3 cups)	2 lb (4 cups)	2 lb (4 cups)
Ludigol	2 tsp. (5gm)	2 tsp. (5gm)	2 tsp. (5gm)	2 tsp. (5gm)

Metaphos (opt.)	1 tsp (7 gm)	1 tsp (7 gm)	1 tsp (7 gm)	1 tsp (7 gm)
Dye Powder	1 tsp. (2.5gm)	3 ½ tsp (9 gm)	3 Tbl. (23 gm)	6 Tbl (45 gm)
25% Liquid Dye	2 tsp (10 ml)	7 tsp (35 ml)	6 Tbl (90 ml)	12 Tbl (180 ml)
30% Liquid Dye	1 ½ tsp (8 ml)	6 tsp (30 ml)	5 Tbl (75 ml)	10 Tbl (150 ml)
40% Liquid Dye	1tsp (5 ml)	5 tsp (25 ml)	4 Tbl (460ml)	8 Tbl (120 ml)
PRO Dye Activator	1 ¼ cup (190 gm)	1 ¼ cup (190 gm)	1 ¼ cup (190 gm)	1 ¼ cup (190 gm)

**3. Prepare dye bath** by measuring 2 ½ gallons (10 liters) of room temperature 75F to 95F (24F to 35C) water for every pound (454 gm) of fabric into a large plastic, stainless steel, enamel or nonreactive metal container. Container should be large enough for the fabric to move freely and to stir the dye bath without spilling.

**4. Add salt** (see chart above), PRO Chem Flakes and 1 level tsp (7 gm) Metaphos (optional, water softener) to the dye bath and stir until dissolved. Add dissolved dye and stir. Add washed and damp fabric. Stir continuously for 10 to 15 minutes for even results, or do not stir for mottled results.

**5. Completely dissolve PRO Dye Activator or Soda Ash** from the chart above in 2 cups (500ml) warm 95F (35C) water. While wearing rubber gloves remove the fabric from dye bath and pour in the dissolved PRO Dye Activator or Soda Ash. Give it a stir and return the fabric to dye bath. Slowly heat dye bath to 175F (80C), stirring continuously for the first 5 minutes. With intermittent stirring keep dye bath at 175F (80C) for 60 minutes. This will insure maximum permanence and depth of shade.

**6. Rinse & wash.** After 60 minutes (90 minutes for black), dyeing is complete. Remove fabric from dye pot and pour the exhausted dye bath down the drain. Rinse fabric thoroughly in a bucket of room temperature 75F to 95F (24F to 35C) water. Change the rinse water 3 to 4 times. Wash in HOT 140F (60C) water, adding 2 tsp (2.5 ml) Synthrapol per pound (454 gm) of fabric. Rinse well and dry. Dark colors may need a second HOT Synthrapol wash. If the rinse water is not clear, wash it again in HOT water with Synthrapol.