

12 Step Gradation Dyeing using PRO MX Reactive Dyes

Please read directions carefully before starting.

Now you can dye your own gradation of color. For solid shade gradation dyeing on Cotton, Linen, Rayon & Silk. This easy recipe dyes twelve fat quarters. Each fat quarter is a different hue, moving from one color to another. You'll need to pull together a couple of things to make your dye session go smoothly, and you'll also need to set aside a 2-hour chunk of time. Always do test samples before working on a large project. For additional information, visit our web site at www.prochemicalanddye.com

- ✘ Wear rubber gloves, apron or old clothes.
- ✘ All utensils used for dyeing should not be used for food preparation.

Equipment

- 12 x 1 gallon (4 liter) plastic dye buckets
- 3 x 1 cup (250 ml) measures
- 1 set of measuring spoons
- rubber gloves

Supplies

- 3 yards (3 meters) bleached or unbleached cotton fabric
- 3 colors of PRO MX Reactive Dye
(NOTE: the best results come from colors that are similar to red, yellow and blue primaries)
- Synthrapol
- ½ cup (54 gm) PRO Dye Activator or Soda Ash
- 3 cups (450 gm) Table Salt

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 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. Cut the fabric.** Cut the 3 yards (3 meters) into twelve "Fat Quarters" (18" x 22", or 46cm x 56 cm). Label each fat quarter from 1 to 12, using a permanent fabric marker.
- 3. Make the dye bath.** Label the plastic dye buckets with masking tape. Number them 1 through 12 and place them in numerical order. Measure 1 quart (1000 ml) of room temperature 75° to 95°F (24° to 35°C) water into each of the plastic dye buckets. Add ¼ cup (75 gm) of salt to each bucket. Stir until the salt is dissolved.
- 4. Make the dye concentrate** by dissolving 2 tsp (5 g) PRO MX Reactive Dye powder Color A in a 1 quart (1000 ml) of room temperature 75° to 95°F (24° to 35°C) water. Repeat for Colors B and C. Then, measure the dye concentrates into the dye baths according to the following chart and stir well

12 Step Gradation Mixing Chart

	A	B	C
Dye Bath #1	10 Tbl	0	0
Dye Bath #2	7 ½ Tbl	2½ Tbl	0
Dye Bath #3	5 Tbl	5 Tbl	0
Dye Bath #4	2 ½ Tbl	7 ½ Tbl	0
Dye Bath #5	0	10 Tbl	0
Dye Bath #6	0	7 ½ Tbl	2 ½ Tbl
Dye Bath #7	0	5 Tbl	5 Tbl
Dye Bath #8	0	2 ½ Tbl	7 ½ Tbl
Dye Bath #9	0	0	10 Tbl
Dye Bath #10	2 ½ Tbl	0	7 ½ Tbl
Dye Bath #11	5 Tbl	0	5 Tbl
Dye Bath #12	7 ½ Tbl	0	2 ½ Tbl

5. Add the fabric. Add one washed and wet "Fat Quarter" fabric to each dye bath. Stir each dye bath occasionally for the next 10 minutes.

6. Fix the dye onto the fabric. Make the PRO Dye Activator or Soda Ash concentrate by dissolving ½ cup (54 gm) of PRO Dye Activator or Soda Ash in 3 cups (750 ml) warm 120°F (49°C) water. While wearing rubber gloves, remove the fabric from Dye Bath #1. Pour ¼ cup (60 ml) of PRO Dye Activator or Soda Ash concentrate into this dye bath and mix well. Return the fabric to the dye bath and give it a good stir. Add ¼ cup (60 ml) of the dissolved PRO Dye Activator or Soda Ash to Dye Baths #2 through #12, just as you added it to Dye Bath #1.

Stir each of your dye baths every 5 minutes for the next hour. Make sure there are no air bubbles trapped in the fabric and change the folds in the fabric each time you stir.

7. Rinse the fabric. After 60 minutes dyeing is complete. While wearing rubber gloves remove the fabric from Dye Bath #1 and lay it in the sink. Carefully pour the dye bath down the drain. Fill your empty dye bath bucket with room temperature 75° to 95°F (24° to 35°C) water, then replace your fabric. Rinse each fat quarter in room temperature 75° to 95°F (24° to 35°C) water, changing the rinse water four times. Then wash all of your fabric together in very HOT 140°F (60°C) water with ½ tsp (2.5 ml) Synthrapol for 5 minutes. Rinse until the rinse water is clear and dry the fabric.

Good Things to Know

- ✓ Dye baths cannot be stored or reused after PRO Dye Activator or Soda Ash is added.
- ✓ Dye your fabric with a pattern. Obtain the popular mottled or crushed look by wadding your washed and wet fabric into a ball. Wrap rubber bands around it to hold it loosely together and then add it to your dye bath.
- ✓ You can increase or decrease the amount of dye powder in the dye concentrate in Step 4 to get a paler or darker gradation.
- ✓ **LOW WATER IMMERSION:** You can also follow these directions by eliminating the water and salt and just wetting out each fat quarter with 1/4 cup of room temperature water and crumpling it in a quart container. Measure the colors for each dye bath as shown in the chart above and then pour over the damp fabric. Thoroughly work the colors in, let sit for 15 minutes and then complete Step #6. To set the color, allow the fabrics to sit at room temperature 75° to 95°F (24° to 35°C) for 4 to 24 hours (the longer you let the fabric set, the deeper the color will be). Rinse and wash as in Step #7.