



# Halcyon Yarn

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## Dyeing on Soy Silk Using WashFast Acid Dyes

Please read directions thoroughly before starting.

### Immersion Technique:

These WashFast Acid Dyes are for soy silk, as well as wool, silk angora, and mohair. They are normally applied at a boil and only up to 185° F (85°C) for silk. These directions are based on dyeing one pound (454 grams) of fiber. Please increase or decrease the amounts proportionately for different quantities of fiber. Always do test samples before working on a large project.

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

### Supplies

WashFast Acid Dye	Non-Iodized or Glauber Salt
Citric Acid Crystals	Synthrapol
Ammonium Sulfate	
or white distilled vinegar	

### Procedure:

**Thoroughly wet out yarn** or fabric by measuring 1/2 tsp (2.5 ml) synthrapol in 2 1/2 gallons (10 liters) of warm 110° F (44° C) water, for each pound of fiber. Soak for at least 30 minutes.

**2. Dissolve the dye.** Measure the desired amount of dye powder, from the following chart, into a pyrex container. Dissolve the dye powder with 1 cup(250ml) of boiling water for pale and medium shades; use 2 cups (500ml) of boiling water to dissolve dark shades and black. Stir thoroughly and set aside while making the dye bath.

	Pale	Medium	Dark	Black
Dye Powder	1/2 tsp (1.2gm)	1 3/4 tsp (4.5 gm)	3 1/2 tsp (9 gm)	10 tsp (25 gm)
Salt	1 Tbl (15 gm)	1 Tbl (15 gm)	1 Tbl (15 gm)	1 Tbl (15 gm)
Synthrapol	1 tsp (5 ml)	1 tsp (5 ml)	1 tsp (5 ml)	1 tsp (5 ml)
Acid (choose one)	Citric Acid 1 Tbl (15 gm) or	Ammonium Sulfate 1 Tbl (15 gm) or	White Vin- egar 1 Tbl (165 ml)	

**3. Make the dye bath** by pouring 3.5 gallons (14 liters) of room temperature water into a stainless steel or unchipped enamel pot. The pot should be large enough to allow the fiber to move freely without spilling the dye bath. Add the dissolved dye, salt, Synthrapol, and chosen acid. Stir thoroughly.

**Note:** *Leftover dissolved dye can be stored for a maximum of six months.*

**4. Add the fiber.** Squeeze out the excess water from your fiber and add it to the dye pot. Stir gently for 3 to 5 minutes to uniformly distribute the dye. Gradually raise the temperature to a boil. Stir intermittently for 60 minutes. If you are dyeing silk, raise the temperature only to 185°F (85°C) and maintain this temperature for the 60 minutes. Do not go above 185°F (85°C) or you may ruin the luster of the silk.

After 60 minutes, check to see if the dye bath water is fairly clear or if it has lots of color still left in it. If it has lots of color, slowly add 6<sup>1</sup>/<sub>2</sub> Tbl (100ml) of white distilled vinegar to the dye bath. Make sure you don't pour the vinegar directly on your fiber. Simmer for another 10 minutes.

**5. Rinse the fiber.** Allow the dye bath to cool to room temperature. Remove the fiber and rinse it well in warm water. Squeeze out the excess water and air dry.

### Helpful Information to know

- Once the WashFast Acid Bright Red 351 and Bright Blue440 are dissolved and cooled to room temperature, they have a tendency to form a gelatinous solution. Warm the dye solution and it is easy to measure. or you can add up to 4 Tbl (50 gm) of Urea to each cup of solution to inhibit the dye from becoming gelatinous. Add the urea once the dye solution cools to 120° F (49°C). Discard the dye solution if you detect an ammonia smell.

- Use Citric Acid Crystals or white distilled vinegar to set the dye for dark colors and black. We've found the results to be darker.

Rainbow or Variegated dyed Soy Silk, as well as wool, silk, angora mohair and nylon. It is important to do samples before working on a large project.

## Washfast Acid Dyes to produce rainbow or variegated fibers

On soy silk, as well as wool, silk, angora, mohair and nylon. It is important to do samples before working on a large project.

### Procedure

**1. Make the acid soak solution.** Please read the three methods below then choose the one that best suits your application needs. Soak the fiber for at least 30 minutes, in one of the solutions below:

Method # 1	Method #2	Method #3
1 gal (4 liters) 95°F (35°C) water	1 gal (4 liters) 95°F (35°C) water	3 qt (3 liters) 95°F (35°C) water
6 Tbl (105 gm) Citric Acid Crystals	6 Tbl (54 gm) Ammonium Sulfate	4 Cups (1 liter) White Vinegar
2 tsp (10 ml) Synthrapol	2 tsp (10 ml) Synthrapol	2 tsp (10 ml) Synthrapol

**Note:** Leftover dissolved dye can be stored for a maximum of 6 months.

**2. Apply the dye paint** Decide if you want a pale, medium or dark value. Measure the dy powder amount, according to the chart below into a clean dry 2 cup (500 ml) measure. Dissolve the dye powder with 1 cup (250 ml) of boiling water and set aside until cool.

	Pale	Medium	Dark	Black
Dye	1/4 tsp (.75 gm)	1 tsp (2.5 gm)	2 tsp (5 gm)	4 tsp (10 gm)

**3. Apply the dye paint** While wearing rubber gloves, squeeze out any excess acid soak solution from the fiber. Lay fiber (yarn or fleece) on a length of plastic wrap. Apply the dye solution with a sponge brush, squeeze bottle, or syringe, or by dipping the fiber into the dye paint. Work the dye solution into the yarn or fleece with your gloved fingers to insure thorough saturation.

It is handy to have a bucket of clear water next to your working area to rinse your hands between color changes. Obtain a fluid color gradation by overlapping one or two colors to produce a third color. Be careful not to apply so much dye that color drips from the fiber as colors run together during the steam set process. Wrap the fiber with the plastic wrap.

If you are dyeing silk, put this wrapped bundle aside for 30 minutes. The rest yields darker colors because the dye penetration improves.

**4. Set the dye.** Place the plastic wrapped fiber on a stainless steel leaved vegetable steamer. Place the steamer in a stainless steel, enamel, or Pyrex pot with water in the bottom. Water should not touch the bottom of the steamer basket. Place the pot on a burner and cover. Steam for 30 minutes, measuring the time after the water begins to boil. After 30 minutes, turn the heat off and allow the fiber to cool to room temperature. Remove the fiber and rinse thorough in warm water. Squeeze out excess water and air dry.