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# Immersion Dyeing on Nylon using WashFast Acid Dyes

Please read directions thoroughly before starting.

*These directions are based on dyeing one pound (454 gm) of fiber. Please increase or decrease the amounts proportionately. Always do test samples before working on a large project. For additional information visit our web site at [www.prochemical.com](http://www.prochemical.com).*

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

## Supplies

WashFast Acid Dye  
 Citric Acid Crystals,  
 Ammonium Sulfate  
 or white distilled vinegar  
 Synthrapol

## Procedure

**1. Wet out the fiber** by measuring ½ tsp (2.5 ml) Synthrapol in 2½ gallons (10 liters) of warm 110°F (44°C) water, for each pound (454 gm) 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 (250 ml) of boiling water for pale and medium shades; use 2 cups (500 ml) 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	½ tsp (1.2 gm)	1¾ tsp (4.5 gm)	3½ tsp (9 gm)	10 tsp (25 gm)
Synthrapol	1 tsp (5 ml)	1 tsp (5 ml)	1 tsp (5 ml)	1 tsp (5 ml)
Acid (choose one)	1 Tbl (15 gm) Citric Acid Crystals <b>or</b>	1 Tbl (15 gm) Ammonium Sulfate <b>or</b>	11 Tbl (165 ml) white vinegar	

**3. Make the dye bath** by pouring 3½ gallons (14 liters) of room temperature 75° to 95°F (24° to 35°C) 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, Synthrapol, and acid (Acetic Acid 56%, Citric Acid Crystals, Ammonium Sulfate or white vinegar). Stir thoroughly.

**NOTE:** Leftover dissolved dye can be stored for a minimum of 6 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 205°F (96°C). Keep at 205°F (96°C) and stir intermittently for 30 to 45 minutes. The darker the color the longer the dyeing time.

**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 Blue 440 are dissolved and cooled to room temperature, they have a tendency to form a gelatinous solution. Warm the dye solution up and it is easy to measure. Or you can add up to 4 Tbl (50 gm) of Urea to each cup of dye 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.