



# Jacquard Acid Dye Instructions

## BASICS:

The variables in dyeing are temperature, dye concentration, time and amount of fabric. The washing machine method is the easiest way to dye fabric a solid color. However, if you are concerned with achieving the most accurate and reproducible results, or getting the darkest colors, we recommend using the stove top method. Use the instructions as a guideline. Acid dyes are quite forgiving and amenable to variations in procedure. The more you experiment, the more you will discover!

<b>SAFETY</b>	▪ May irritate the skin or eyes.	▪ Breathing dust may be harmful.	▪ Utensils that have been used for dyeing should not be used in food preparation.
	▪ Avoid eye contact, wear rubber gloves and suitable mask.	▪ Keep out of reach of children.	

### STOVE TOP METHOD: Best for wool.

1. Fill a stainless steel or enamel pot with just enough hot or warm water (cool for wool) for the fabric to swim freely. Turn the heat to medium.
2. Add the dye powder to the pot and stir until dissolved. Use the appropriate amount of dye for the desired shade (see chart on page 2).
3. Thoroughly wet fabric with warm water and add to dye bath.

4. Gradually raise the temperature to 185° - 200° F, just below boiling. Stir frequently.
5. Add a quarter cup of vinegar per pound of fabric. Another option is to add Citric Acid (1 tablespoon per pound of fabric). Try not to pour directly onto the fabric.
6. Maintain temperature and gently stir frequently for half an hour. Wash in Synthrapol® or mild detergent and warm water.

*NOTE: If you are dyeing wool, a gradual heating and gradual cooling of the dye bath is important so as not to shock and felt the wool.*

### TOP LOADING WASHING MACHINE METHOD:

*Not for wool. (Wool may felt in a washing machine—use the stove top method instead.)*

1. Set the washing machine to the hot wash/cool rinse and longest wash cycle setting. Fill water to the lowest level appropriate for the amount of fabric being dyed. (Fabric must be submerged and able to move freely.)
2. Add dye powder and agitate until dissolved.
3. Add clean, wet fiber and agitate for a few minutes.
4. Add 1 to 3 cups of white vinegar (depending on volume of water) being careful not to pour directly onto fabric. You may also use Citric Acid, and add 1 tablespoon per pound of fabric. Let agitate a few more minutes.
5. Let machine run through cycle OR, for maximum washfastness, stop and reset washer to maximum cycle length. Do not let the washing machine drain or start a new wash cycle. The idea is to lengthen the time the fabric is in the dye bath. After resetting, let washer run through entire cycle.
6. To ensure that all the excess dye has been removed, you may want to run the fabric through another wash cycle with cool water and some Synthrapol® or mild detergent. Remove fabric.
7. Run washer through a large rinse cycle to remove any excess dye in the washing machine.

### FRONT LOADING WASHING MACHINE METHOD:

*Not for wool. (Wool may felt in a washing machine—use the stove top method instead.)*

1. Dissolve the dye in approximately ½ to 1 cup hot water.
2. Pour the dissolved dye and 1 to 3 cups of white vinegar (depending on volume of water) into the bottom of the washing machine tub. You may also use Citric Acid, and add 1 tablespoon per pound of fabric. **IMPORTANT:** *If your machine has a pre-wash flush, add dye and vinegar between the flush and wash cycles to prevent the dye from being flushed from the machine.*
3. Add pre-wetted fabric.
4. Set your machine for the hottest possible water temperature and longest possible wash cycle. If you are able to extend the wash cycle, do so. The longer you are able to allow the fabric to remain in the wash/dye cycle the darker the color and the better the fixation.
5. When the machine has completed the wash cycle, allow it to complete the balance of the wash/rinse/spin cycle.
6. Wash the garment with a mild detergent in cold water and dry.

*NOTE: We recommend a thorough cleaning of your washer after you have used it to dye fabric. Most front loading washers collect residual water in the front door gasket and will also hold water in the exterior tub. Wipe down the door gasket carefully and run a short cycle with your normal detergent after completing dye process. (You may want to refer to your Washing Machine Users Manual for cleaning instructions.)*



### DYE QUANTITIES - Washing Machine Method:

Here is the general dye quantities chart to give you an idea of where to start. The quantities listed are for the deepest color saturation. For pastels and lighter colors, use less dye. Amounts of dye given per pound of fabric. (Stove top method will require less dye.) Do not exceed 8% dye per pound of dry fabric.

.25 to .5 ounces	.5 to 1.5 ounces	1.5 to 2 ounces	up to 3 ounces
600 Ecru	604 Burnt Orange	606 Deep Orange	618 Fire Red
601 Yellow Sun	610 Burgundy	609 Scarlet	632 Chestnut
602 Bright Yellow	620 Hot Fuchsia	611 Vermillion	639 Jet Black
603 Golden Yellow	627 Kelly Green	612 Lilac	626 Navy Blue
605 Pumpkin Orange	628 Chartreuse	613 Purple	635 Brown
607 Salmon	633 Aztec Gold	614 Violet	
608 Pink	634 Olive	615 Periwinkle	
636 Gold Ochre	616 Russet	621 Sky Blue	
638 Silver Grey	617 Cherry Red	622 Sapphire Blue	
		623 Brilliant Blue	
		624 Turquoise	
		625 Royal Blue	
		629 Emerald	
		630 Spruce	
		631 Teal	
		637 Gun Metal	

### FLOWABLE PAINTING:

For professional silk painters who steam set, liquid acid dyes provide the brightest, most intense colors. To make your own liquid acid dyes for silk painting, use the following recipe:

1. Add 8 oz. (1 cup) of very hot water to one 1/2 oz. jar of Jacquard Acid Dye powder.
2. Stir until dissolved. This will yield a very concentrated dye stock solution. Most colors require further dilution.  
*NOTE: Every color has a different solubility. Some colors are difficult to dissolve, but most are easily dissolved. A small amount of alcohol (about 1 tablespoon) can be added to the dye solution as a wetting agent.*
3. The final concentration of the dye solution for painting should be between 4 and 8%. Start by adding 4 oz. (1/2 cup) of water to the 8 oz. of stock solution you have, test the color and continue adding water until desired shade is achieved.

Keep in mind that the color intensity really develops in the steam setting process. Most colors will remain stable in solution for a long period of time. However, some colors will fall out of solution upon cooling or from sitting for a matter of weeks. To restore them simply heat them on the stove.

### SCREEN PRINTING, STAMPING & PAINTING:

The traditional method of printing with dye is to add the dye to a thickener paste. This method can be used for screen printing, hand-painting, and stamping and many other direct application techniques. It is important to prepare the fiber by washing to remove the sizing.

1. Wash, dry and iron the fabric.
2. Prepare dye thickener paste (see below).
3. Add dye, either powder or stock solution, to thickener. Proportion the dye in the container in relation to the amount of thickener paste and desired intensity.
4. Print, paint, or stamp on fabric.
5. Air dry. Steam set (follow your steamer's instructions).

### PREPARING DYE THICKENER:

When screen printing with dye thickened with sodium alginate, the print base should be as thin as the image will allow. Dye printed in too thick a base will halo from the image before the fabric is cured or will accumulate in the corners, altering the image. Sodium Alginate SH is a high viscosity, low solids type of alginate thickener used primarily for cotton and other cellulose fibers. It may also be used for silk when fine line definition is not required. Sodium Alginate F is a low viscosity, high solids alginate used for silks and synthetics when fine line definition is desired. Use about 2 1/2 times more of the F to equal the viscosity of SH.

1. Mix chemical water by adding 1/4 cup of urea & 1 tablespoon vinegar to 1 quart of water.
2. Sprinkle sodium alginate over water and stir constantly for 10 minutes, OR mix in blender.
3. Let stand for a few hours or overnight before using. Mixture may be stored in refrigerator for many months.