

Jacquard Acid Dyes



artist: Jim Nussbaum

Instructions

BASICS:

The variables in dyeing are temperature, dye concentration, time and amount of fabric.

We recommend using the washing machine for the easiest way to dye fabric a solid color. However, if you are concerned with the most accurate and reproducible results, we recommend the stove top method. To achieve the darkest colors, we also recommend the stove top method. Use the instructions as guidelines. Acid dyes are quite forgiving and amenable to variations in procedure. The more you experiment, the more you will discover!

Safety: May irritate the skin or eyes. Avoid eye contact, wear rubber gloves, and suitable dust mask. Breathing dust may be harmful. Keep out of reach of children.

WASHING MACHINE METHOD:

These directions are for top loading washing machines only.

1. Set the washing machine to the hot wash/cool rinse and longest wash cycle. Fill water to the lowest level appropriate for the amount of fabric being dyed.
2. Get fabric wet then pull out and set aside.
3. Add dye powder and agitate until dissolved.
4. Add clean wet fiber and agitate for a few minutes.
5. Add one cup of vinegar being careful not to pour directly onto fabric. Let agitate a few more minutes.
6. 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. You just want to lengthen the time the fabric is in the dyebath. After resetting, let washer run through cycle.
7. Remove fabric from washing machine. To ensure that all of the excess dye has been removed, you may want to run the fabric through another wash cycle with cool water and some Synthrapol.
8. Run washer through a large rinse cycle to remove any excess dye in the washing machine.

Dye Quantities:

Here is a 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.

Per Pound of Fabric—Washing Machine Method

.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	#621 Sky Blue	#618 Fire Red
#601 Yellow Sun	#610 Burgundy	#609 Scarlet	#622 Sapphire Blue	#632 Chestnut
#602 Bright Yellow	#620 Hot Fuchsia	#611 Vermillion	#623 Brilliant Blue	
#603 Golden Yellow	#627 Kelly Green	#612 Lilac	#624 Turquoise	
#605 Pumpkin Orange	#628 Chartreuse	#613 Purple	#625 Royal Blue	
#607 Salmon	#633 Aztec Gold	#614 Violet	#629 Emerald	
#608 Pink	#634 Olive	#615 Periwinkle	#630 Spruce	
#636 Gold Ochre		#616 Russet	#631 Teal	
#638 Silver Grey		#617 Cherry Red	#637 Gun Metal	
		#619 Crimson		

For the following colors we recommend the stove top method for the deepest color saturation.

#639 Black #626 Navy #635 Brown

STOVE TOP METHOD:

1. Fill a stainless steel or enamel pot with just enough hot or warm water for the fabric to swim freely, turn on the heat.
2. Add the dye powder to the pot and stir. Normally, in this procedure you would add 2 to 4% of the dry weight of the fabric in dye powder. For example, if you are dyeing 1 pound of fabric, use $\frac{1}{3}$ to $\frac{2}{3}$ of an ounce of dye.
3. Add the fabric that has been thoroughly wetted to the dyepot.
4. Raise the temperature to 185 to 200 degrees, just below boiling. Stir frequently.
5. Add $\frac{1}{4}$ cup of vinegar per pound of fabric. Try not to pour directly onto the fabric.
6. Maintain temperature and stir frequently for $\frac{1}{2}$ hour. Wash in Synthrapol and warm water.

Note: If you are dyeing wool, a gradual heating and gradual cooling of the dyebath is important so as not to shock and felt the wool.

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 $\frac{1}{2}$ 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. ($\frac{1}{2}$ cup) of water to the 8 ounces 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. (See Steam setting directions.)

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 $\frac{1}{2}$ times more of the F to equal the viscosity of SH.

1. Mix chemical water by adding $\frac{1}{4}$ cup of urea 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.

Jacquard Acid Dyes

Instructions

Specifications:

Color	Color Index #	Solubility	Wash Fastness	Light Fastness	Dischargeability
600 Ecru	Mix	100 gm/liter			
601 Yellow Sun	Yel 49	150 gm/liter	2-3	5-6	Good
602 Bright Yellow	Yel 19	50 gm/liter	5	5	Moderate
603 Golden Yellow	Yel 219	50 gm/liter	5	7	Moderate
604 Burnt Orange	OR 116	40 gm/liter	5	5-6	Moderate
605 Pumpkin Orange	Mix	10 gm/liter			
606 Deep Orange	Red 000	10 gm/liter	5	7	Moderate/Good
607 Salmon	Mix	30 gm/liter			
608 Pink	Mix	20 gm/liter			
609 Scarlet	Mix	20 gm/liter			
610 Burgundy	Red 299	30-40 gm/liter	4-5	5-6	Good
611 Vermillion	Mix				
612 Lilac	Mix				
613 Purple	Mix				
614 Violet	Vio 43	10-20 gm/liter	1-2	5-6	Poor
615 Periwinkle	Mix				
616 Russet	Mix				
617 Cherry Red	Red 266	50-60 gm/liter	4-5	6	Moderate
618 Fire Red	Mix	30-40 gm/liter			
619 Crimson	Mix	20 gm/liter			
620 Hot Fuchsia	Red 52	100-150 gm/liter	3-4	2-3	Poor
621 Sky Blue	Blue 129	20-30 gm/liter	4	4-5	Poor
622 Sapphior Blue	Blue 25	50-60 gm/liter	1-2	4-5	Poor
623 Brilliant Blue	Blue 62	100-150 gm/liter	2-3	4	Moderate
624 Turquoise	Blue 7	30-40 gm/liter	3	1	Moderate
625 Royal Blue	Blue 324	20-30 gm/liter	4-5	5-6	Poor
626 Navy Blue	Blue 113	20-30 gm/liter	4-5	7	Poor
627 Kelly Green	Mix	30-40 gm/liter			
628 Chartreuse	Mix	30-40 gm/liter			
629 Emerald	Mix	20-30 gm/liter			
630 Spruce	Mix				
631 Teal	Green 25	10-30 gm/liter	4	6	Poor
632 Chestnum	Mix	40-50 gm/liter			
633 Aztec Gold	Mix	50-60 gm/liter			
634 Olive	Mix				
635 Brown	Mix				
636 Gold Ochre	Mix	30-50 gm/liter			
637 Gun Metal	Mix	20-30 gm/liter			
638 Silver Grey	Not Released	30-40 gm/liter	4-5	6	Poor
639 Jet Black	Mix	40-50 gm/liter			