



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!

SAFETY

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

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.)

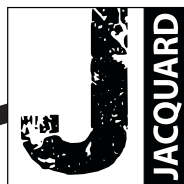
1. Set the washing machine to the hot wash/cool rinse and longest wash cycle setting. Fill water to the lowest level appropriate for the amount of fabric being dyed. (Fabric must be submerged and able to move freely.)
2. Add dye powder and agitate until dissolved.
3. Add clean, wet fiber and agitate 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 601 Yellow Sun 602 Bright Yellow 603 Golden Yellow 605 Pumpkin Orange 607 Salmon 608 Pink 636 Gold Ochre 638 Silver Grey	604 Burnt Orange 610 Burgundy 620 Hot Fuchsia 627 Kelly Green 628 Chartreuse 633 Aztec Gold 634 Olive 616 Russet 617 Cherry Red	606 Deep Orange 609 Scarlet 611 Vermillion 612 Lilac 613 Purple 614 Violet 615 Periwinkle 621 Sky Blue 622 Sapphire Blue 623 Brilliant Blue 624 Turquoise 625 Royal Blue 629 Emerald 630 Spruce 631 Teal 637 Gun Metal	618 Fire Red 632 Chestnut 639 Jet Black 626 Navy Blue 635 Brown

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 ½ 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. (½ 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:

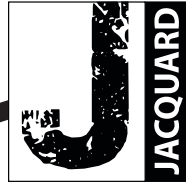
The traditional method of printing with dye is to add the dye to a thickener paste. This method can be used for screen printing, hand-painting, and stamping and many other direct application techniques. It is important to prepare the fiber by washing to remove the sizing.

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 2½ times more of the F to equal the viscosity of SH.

1. Mix chemical water by adding ¼ 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.



STEAMING INSTRUCTIONS FOR DYED FABRICS

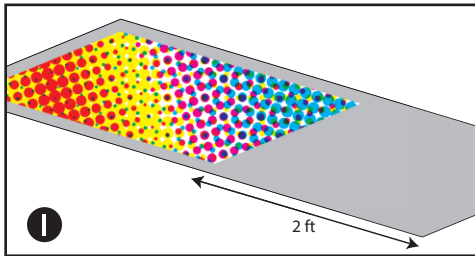
These are general instructions for making your own fabric steamer for steaming small dyed projects. Be sure you are using the appropriate dye for the type of fabric you are using.

Supplies

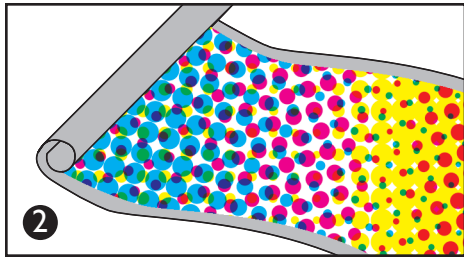
Blank newsprint, butcher paper
or art paper (no colored paper)
Aluminum Foil
Ceramic Plate

3 Ceramic Coffee Cups
Deep Metal Stock Pot or Canning Pot
Rubber Bands or String

- 1 You need to roll the fabric in paper so the fabric does not touch itself during steaming to prevent back-staining. Lay your fabric flat on a sheet of blank newsprint, butcher paper or art paper that is 2 feet longer than the fabric.

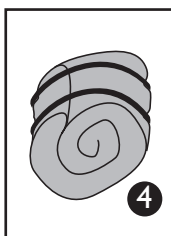
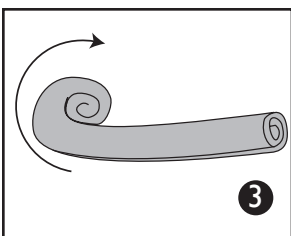


- 2 Starting at one end, roll the fabric and paper together into a tube.

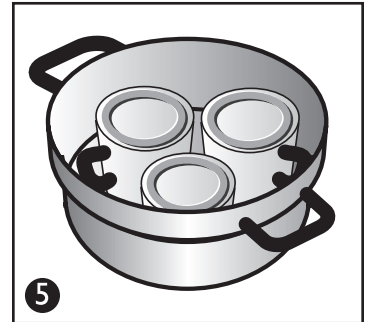


- 3 Now, starting at one end of the tube, roll the tube into a coil like a cinnamon bun.

- 4 Tie string or place rubber bands around the coiled fabric and paper. Do not use tape! It will draw water to the paper.



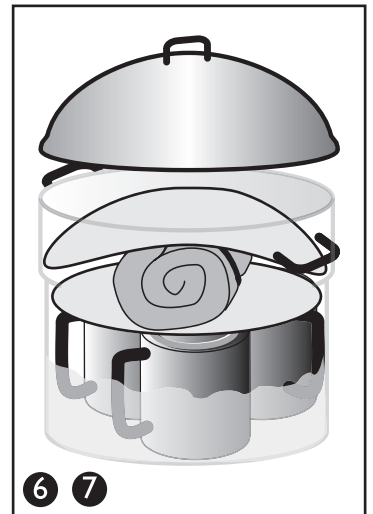
- 5 Place a large stock pot, canning pot or some other deep metal pot onto your stove. In the bottom of the pot place 3 ceramic mugs or coffee cups upside down.



- 6 Now pour water into the pot until the cups are covered halfway with the water. IMPORTANT: Tilt the cups one at a time to allow the water level inside and outside of the cups to equalize.

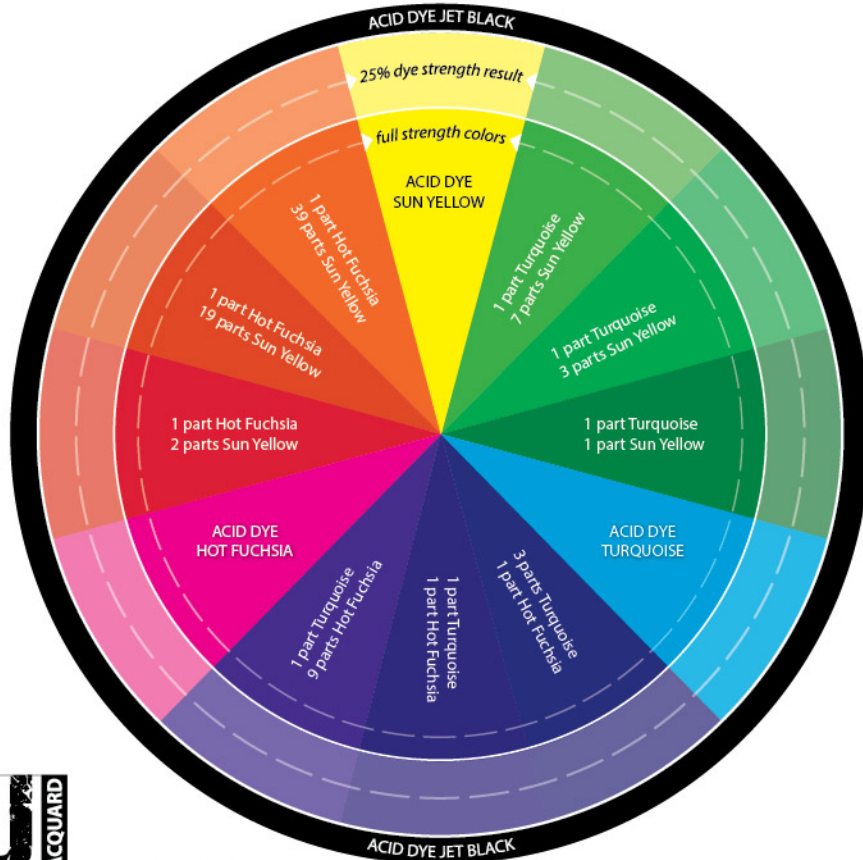
- 7 Cut 2 circles of aluminum foil that will cover all three bottoms of the cups. Sandwich the paper coil between the two pieces of foil. Or use a plate turned upside down over the cups and cover the paper coil with foil.

- 8 Put the lid on the pot to keep the steam inside, and bring the water to a low boil for 30 minutes. CAUTION: Do not let all the water boil away.



- 9 When cool enough, unroll fabric and wash gently with mild detergent.

ACID DYE - COLOR MIXING CHART



ACID DYE - COMPLEX COLORS MIXING RATIOS



BLACK CHERRY
1 part Jet Black
3 parts Hot Fuchsia



INTENSE VIOLET
1 part Jet Black
19 parts Hot Fuchsia



OLIVE GREEN
1 part Jet Black
7 parts Sun Yellow



DUSTY MAGENTA
1 part Turquoise
3 parts Sun Yellow
36 parts Hot Fuchsia



DEEP PURPLE
1 part Sun Yellow
6 parts Turquoise
15 parts Hot Fuchsia



KERMIT GREEN
1 part Turquoise
3 parts Hot Fuchsia
36 parts Sun Yellow



FOREST GREEN
1 part Jet Black
1 part Turquoise
6 parts Sun Yellow



BLUE TEAL
1 part Jet Black
7 parts Turquoise



CHESTNUT BROWN
3 parts Jet Black
7 parts Turquoise
12 parts Sun Yellow



BLUE NAVY
2 parts Jet Black
7 parts Turquoise
7 parts Hot Fuchsia



LIME GREEN
1 part Turquoise
39 parts Sun Yellow



CORAL
1 part Sun Yellow
1 part Hot Fuchsia

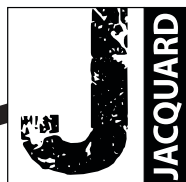


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Jacquard Acid Dye Technical Info



Jacquard Acid Dye - Primary Colors

	C	M	Y
Warm	624 Turquoise	617 Cherry Red	601 Yellow Sun
Cool	623 Brilliant Blue	618 Fire Red	602 Bright Yellow

Jacquard Acid Dye Properties

For wash and light fastness higher numbers are best

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