BASIC TIE-DYE INSTRUCTIONS

Using Procion-MX Dyes on cotton T-shirts

Tie-Dye is a resist technique. Fabric is manipulated in any number of different ways in order to block dye from getting to certain areas. Tying and knotting, folding and pleating, stitching and scrunching are some of the possibilities.

Batik and ikat are related techniques. Batik uses melted wax to block dye and ikat is tie-dye of sections of warp wound for weaving. Shibori is the Japanese word for tie-dye, though it is often used more narrowly.

These instructions are for tie-dye by direct application, which is just what it sounds like. Once the fabric has been arranged to block dye as desired, one or more colors of dye in solution are dribbled onto particular areas. This method allows different colors to not mix.

The recipe below is for Procion MX Fiber Reactive Dye, on 100% cotton T-shirts. The top-stitching is usually done with polyester thread, which will not dye. This is generally easy enough to ignore.

APPROXIMATE AMOUNTS NEEDED TO TIE-DYE
3 Medium-sized men's T-shirts (about one pound of fabric)
1 tablespoon (3 teaspoons, 9 grams) Dye*
1 cup (1/2 pound) Sal Soda**
1/4 cup Urea***

Tie-Dye is by no means an exact science. All amounts are approximate, and there are always other ways to do any step. This is a starting place.

You'll need ties, containers, applicators, an appropriate work surface. This is a good thing to do outdoors, especially if you are working with young children.

* Use more dye for more intense colors.

** This more than you'll need for three shirts, but it's hard to really saturate even a few shirts in less than a gallon of water. A cup of soda in a gallon of water is the right concentration. This amount will soak 8-12 shirts, a few at a time. Left-over can be stored to use later. Sal soda is also called washing soda or sodium carbonate.

*** There may be a little bit extra here too.

Step-by step, for 3 medium-sized men's shirts

(calculate quantities proportionately for other sets of shirts, roughly by weight)

SAL SODA PRE-SOAK

Wash the shirts in warm soapy water to remove sizing.

Dissolve one cup of soda in a gallon of water. Pre-soak your shirts for 15 minutes or so in this solution. If you're doing more than three, you'll probably want to soak them a few at a time.

The soda solution is quite caustic. It's best to wear gloves at this point.

Hang the shirts to drip back into the soda-soak, which can be reused till it is gone. If you get impatient, it's okay to *squeeze* the fabric gently, but *wringing* may take out too much soda. Plastic on top will help them to dry more evenly.

TIEING

I like to tie (or fold, crumple, etc.) the shirts while they are damp but not soggy. If they're *too dry,* the dye solution will not wick up into the fabric well. If they're *too wet*, they won't absorb enough liquid in the form of dye solution. Slightly damp fabric will tend to hold the shape it's put in, and may be possible to handle without gloves. If you don't use gloves, wash and dry your hands right after.

Stitching is a special case. It is hard to poke a needle through wet T-shirt material. Do the stitching before the soda soak, but do not tug on the thread to gather the folds up until the shirt has been soaked and is mostly dry.

Some instructions call for tying first, then soaking. Some suggest doing it while the fabric is still very wet. Again, there is no one correct way. Experiment.

DYE SOLUTION

Dissolve 1/4 cup urea in a pint of water. Use this urea-water to mix the dye solution: 1/2 up to 2 teaspoons dye per 1/4 cup of urea-water. The dye dissolves more easily in hot water, so you may prefer to put the dye and a little bit of urea in a container, and add hot water.

As an imprecise rule of thumb, each (medium-sized men's T-) shirt will absorb about 1/2 cup of dye solution. It's hard to know exactly how much of each color you'll want, though, so you may need to mix up more. Extra dye solution will keep for several days before it starts to loose strength.

For more intense colors—try increasing the urea first; then try more dye.

APPLICATION

Apply dye directly onto cloth. Use pipets, syringes, brushes, squeeze bottles, spray-bottles, spoons. Wear rubber gloves.

REACTION

Let work stand covered, so that it doesn't dry out, for at least six hours. Overnight is better. This is the time when the dye bonds to the fiber.

HEAT SETTING

Undo ties, rinse well, then wash cloth in very hot soapy water (boiling is good or steaming or baking).

Dyed shirts can also be set in a microwave, in a microwave-safe bag. It will take about a minute per ounce of fabric, at medium power. You can do this before or after removing ties and rinsing. If you rinse first, you may take out some remaining soda and dye that could have attached itself if it were still there. If you wait till after heat setting, the colors may mix a little more, and possibly muddy.

My preference is to heat set in a microwave, with the shirt wrapped up in the same arrangement it sat in through the reaction time. I use a thrift store one, which is never used for food.

After setting, rinse until water runs clear.

Other fabrics made from cellulose fibers work similarly. Knit fabrics do take up liquids more easily than woven ones. Rayon takes up moisture and color more easily than cotton, and dyes to brighter colors.