

# Cold Batch Dyeing of Wool with Cibacron F Reactive Dyes

## Preparing a 2% Dye Stock Solution:

Paste 20 grams of dye powder in a small amount of lukewarm water. Add water gradually to a total of 1000 ml, mixing solution thoroughly.

## Preparing thickened chemical water (dye paste) for wool:

Use a blender to mix 1-1/2 cups urea, 3 tsp. sodium bisulfite, 1 tsp. calgon, and 2 tsp. white vinegar with 1 quart of warm water. Add 4-8 tsp. sodium alginate, depending on desired paste thickness. (If you want to thin the dye paste, use unthickened chemical water, not plain water.)

## Value Range:

Amounts of stock solution needed to obtain light, medium and dark values, using 1/2 cup of thickened chemical water

<u>Value</u>	<u>Dye Paste</u>	<u>2% Stock Solution</u>
light	1/2 cup	1 Tbsp
medium	1/2 cup	2 Tbsp
dark	1/2 cup	6 Tbsp

## Procedure for Direct Application on Wool:

1. Prepare dye pastes in thickness and colors desired. (Store them in the refrigerator when you're not using them.)
2. Apply dyes as desired - painting, printing, spraying, etc.
3. Fix dyes by batching: cover and seal the finished piece securely in plastic while it is still damp. Keep it covered for between 12 hours (for pastel shades) and 48 hours (for very dark shades), generally for about 24 hours. If you work on a piece over a period of several days, batch it after each work period. Don't allow dyes to dry completely before batching.
4. Remove sodium alginate and excess dye from the wool by thorough washing, being careful not to shock the wool by sudden changes in water temperature. It isn't necessary for dyes to dry after batching before you wash out the wool. Immerse wool in a large amount of cold water, and keep it circulating gently for 5 minutes. Don't allow wet areas of differing colors to rest on each other. Drain water. Repeat this process until all excess dye is removed, increasing water temperature with each subsequent rinse. Use a drop of Synthrapol and very hot water at the end of this process for a final wash and series of rinses. Squeeze excess water from material and allow it to dry.