

## How to Garment Dye Cotton Using **OrcoSperse™** Pigment Dispersions

Preparation of goods is extremely important in order to promote uniform dyeing. Any residual softeners, resins, oils, or other finishing agents left in the garment can cause dyeing defects. If the garment has been initially acid-washed, generally after a good rinse, the garment will be ready for pigment dyeing. If not, a good prescour using 2% **Orconol CHSA Conc™** on weight of goods(owg) at 140°F(60°C) for 20 minutes followed by a cold rinse should be sufficient.

1. Place garments in machine with water at 85°F(29°C). Recommended liquor ratio is 10-15:1 along with good circulation.
2. Add 8 % owg **Orcofix PT™** and hold at 85°F(29°C) for 5 minutes.
3. Add 8 % owg **Orco Binder GL™** and hold at 85°F(29°C) for 15 minutes.
4. For lighter shades (0.25-1.0 % owg of pigment), 2% owg Soda Ash is added. For darker shades it is recommended that 2% owg Caustic Soda 50% be used. It is very important that these alkalis are diluted into a weaker solution and added over a period of 10 minutes to maintain levelness. At this point the bath should go clear.
5. Drop bath and rinse twice, 5 minutes each.
6. Refill machine with water at 90°F(32°C).
7. Pre-mix **OrcoSperse™** Pigments with 1-2% owg **Orco Assist GDS™** in a separate preparation container. Pre-dilute pigments and **Orco Assist GDS™** mixture and add slowly to machine over 10 minutes.
8. Raise temperature to 140°F(60°C) at a rate of 1-2°F/minute and hold for 20 minutes or until bath is clear. It is necessary not to raise the temperature to 140°F(60°C) too rapidly or unlevel dyeings will occur.
9. Sample and dry.
10. Fix and/or soften as necessary.
11. Because the amount and levelness of fixation of the pigment to the fabric is so sensitive to pH variations, it is recommended that a lab trial be run first with the actual shade formula and then a small plant trial before large-scale production is initiated. Different garment-dyeing machines will generate different results with the same formula and procedure. This procedure is a general guide line which may have to be fine-tuned for the particular garment and machinery it will be dyed in.