



Work Instructions
Colorfastness to Water of Leather

Date: September 2014

Based off of AATCC 107-2002 Colorfastness to Water

Materials needed:

- 1) Multi-fiber test fabric consisting of these materials: Wool, Orlon, Polyester, Nylon, Cotton and Acetate.
- 2) Distilled water.
- 3) Petri dish.
- 4) Perspiration Tester with 10lb weight.
- 5) Plastic or glass plates.
- 6) Drying oven – convection.
- 7) Grey Scale for Color Change
- 8) Grey Scale for Staining
- 9) Weight Scale
- 10) Wringer

Step 1) Using a 2.25x2.25” (57.15x57.15mm) cutting die, cut out a specimen from the leather to be tested.

Step 2) Weigh the leather specimen and record the measurement as the dry weight.

Step 3) Immerse the leather specimen and the multi-fiber test fabric into enough distilled water to cover the immersed objects completely.

Step 4) Wait approximately 15 minutes.

Step 5) Check the weight of the leather specimen.

Step 5.1) If the weight is more than 3 times the dry weight, run the specimen through the wringer and repeat this step (Step 5).

Step 5.2) If the weight is less than 2.5 times the dry weight, immerse both the leather specimen and the multi-fiber test fabric into the same distilled water they were in. Wait 5 minutes and repeat this step (Step 5).

Step 5.3) If the weight is between 2.5 and 3 times the dry weight, record the measurement as the wet weight and then proceed to Step 6.

Step 6) Place the multi-fiber test fabric onto the grain side of the leather specimen so that all of the types of fibers are touching the leather, then place the specimen between plastic or glass plates and insert into the perspiration tester.

Step 7) Heat the drying oven to $100 \pm 2^{\circ}\text{F}$ ($38 \pm 1^{\circ}\text{C}$).



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Step 8) Place the loaded perspiration tester into the oven for 18 hours.

Step 9) Remove the leather specimen and the multi-fiber test fabric from the units and complete drying by hanging in air at room temperature for 12 hours.

Step 10) Once drying of the leather specimen and the multi-fiber test fabric is complete, use the Grey Scale for Color Change to measure the color difference from the untested leather to the leather specimen. Record this measurement as the Specimen.

Step 11) Using the Grey Scale for Staining, measure the amount of staining produced on each type of fiber of the multi-fiber test fabric. Record these measurements as Wool, Orlon, Polyester, Nylon, Cotton and Acetate.