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Wrinkle Recovery of Fabrics: Appearance Method

Developed in 1968 by AATCC Committee RR6; jurisdiction transferred in 1995 to AATCC Committee RA61; reaffirmed and editorially revised 1969, 1985, 1994, 2004, 2009; revised 1970, 1974; reaffirmed 1977, 1980, 1989, 1999, 2013; editorially revised 1988, 1990, 1992, 1995, 2010. Technically equivalent to ISO 9867.

1. Purpose and Scope

1.1 This test method is for determining the appearance of textile fabrics after induced wrinkling. It is applicable to fabrics made from any fiber or combination of fibers.

1.2 The method can be used to evaluate fabrics at their original, unwashed state or after home laundering.

2. Principle

2.1 A test specimen is wrinkled under standard atmospheric conditions in a standard wrinkling device under a predetermined load for a prescribed period of time. The specimen is then reconditioned in the standard atmosphere for textile testing and evaluated for appearance by comparison with 3-dimensional reference standards.

3. Terminology

3.1 **smoothness appearance**, *n.*—*in fabrics*, the visual impression of planarity of a specimen quantified by comparison with a set of reference standards.

3.2 **wrinkle recovery**, *n.*—that property of a fabric which enables it to recover from folding deformations.

4. Safety Precautions

NOTE: These safety precautions are for information purposes only. The precautions are ancillary to the testing procedures and are not intended to be all inclusive. It is the user's responsibility to use safe and proper techniques in handling materials in this test method. Manufacturers MUST be consulted for specific details such as material safety data sheets and other manufacturer's recommendations. All OSHA standards and rules must also be consulted and followed.

4.1 Good laboratory practices should be followed. Wear safety glasses in all laboratory areas.

5. Apparatus and Materials

5.1 AATCC Wrinkle Tester (see Fig. 1,



Fig. 1—AATCC Wrinkle Tester.

and 11.1 and 11.2).

5.2 AATCC 3-Dimensional Wrinkle Recovery Replicas (see Fig. 2 and 11.3).

5.3 Standard conditions room at $21 \pm 1^\circ\text{C}$ ($70 \pm 2^\circ\text{F}$) and $65 \pm 2\%$ RH.

5.4 Clothes hangers with clips.

5.5 A lighting and evaluation area in a darkened room using overhead lighting arrangement shown in Fig. 3.

5.6 Digital Imaging System (see 11.8).

6. Test Specimens

6.1 Take three test specimens from the fabric to be tested by cutting each 15×28 cm (6×11 in.) with the long dimension running in the direction of the warp of woven fabric or the wale of knit fabrics (see 11.4). Identify each specimen along one edge of the face side.

6.2 Condition specimens for a minimum of 8 h at $21 \pm 1^\circ\text{C}$ ($70 \pm 2^\circ\text{F}$) and $65 \pm 2\%$ RH.

7. Procedure

7.1 Perform all further steps at $21 \pm 1^\circ\text{C}$ ($70 \pm 2^\circ\text{F}$) and $65 \pm 2\%$ RH.

7.2 Raise top flange of wrinkle tester and hold in top position with locking pin.

7.3 Wrap one long edge (28 cm) (11 in.) of the specimen around the top flange of the AATCC Wrinkle Tester with the face side of the specimen on the outside and clamp it in position using the steel spring and clamp provided. Arrange the ends of the specimen so that they are opposite the opening in the spring clamp.

7.4 Wrap the opposite long edge of the specimen around the bottom flange and clamp as described above.

7.5 Adjust the specimen by pulling on its bottom edge, so that it lies smooth

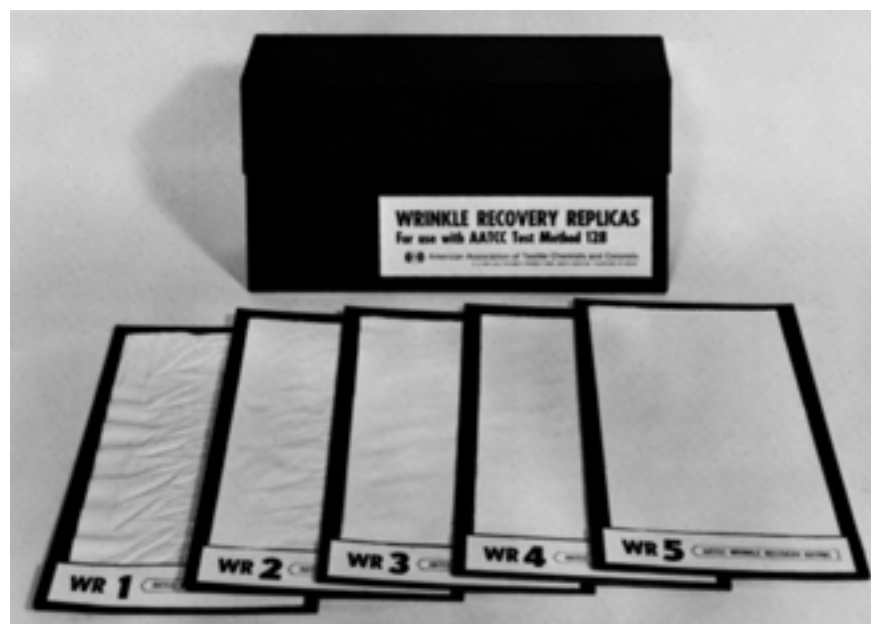


Fig. 2—AATCC Wrinkle Recovery Replicas.