Test Method for Measuring Thickness of Material.

Derived from INDA Test Method #IST 120.1 (ASTM D5729-97)

Version 1

1. Scope

1.1 The thickness of a single layer of fabric is measured under dead weight pressure with the Ames Gauge. It is expressed in mils (0.001 inch equals 1.0 mil).

2. Apparatus

2.1 Ames Gauge (Model No. 68-2052, or equivalent)

2.1.1 Platen, 12 inch x 14 inch or other suitable size.

2.1.2 Foot (swivel contact), 1.5 inch diameter

2.1.3 Dial indicator with 0.001 inch divisions.

2.1.4 Dead weight loading of 1 ounce/square inch (or 1.767 ounces/1.767 square inches, or 50.14 grams/20.27 square centimeters).

3. Test Specimen

3.1 The tested fabric shall be free of wrinkles, creases, and abrasions. It should be a minimum of 2 inches wide and long enough to allow several determinations.

4. Conditioning

4.1 Conditioning is not required.

5. Procedure

5.1 Clean the gauge foot/platen contact area by sliding a piece of clean paper through the closed gap.

5.2 Zero the gauge as necessary.

5.3 Raise the foot of the dial indicator by depressing the lever arm.

5.4 Place the fabric on the platen under the foot of the gauge.

5.5 Slowly release the dial indicator lever so that the foot gently contacts the fabric. Do not let the foot fall rapidly onto the fabric, as this may crush the fabric and result in a false reading.

CAUTION: The dial indicator level should never be allowed to rapidly fall onto the platen, as damage to the internal mechanism may occur.

5.6 Before taking the dial reading, wait at least two (2) seconds but no more than five (5) seconds.

5.7 Record the reading to the nearest mil (0.001 inch)

5.8 Take the required number of readings at the locations on the sample as specified for the particular product being tested.

6. Calculations

6.1 None.

7. Report

7.1 Report the individual readings (to the nearest mil) and the average of the individual readings (to the nearest tenth of a mil). Include roll identification information in the report.