

'On-The-Spot' Method for Testing the Smolder Resistance of Cotton Batting

The National Cotton Batting Institute developed this standard in association with the American Society for Testing and Materials (ASTM). It allows manufacturers to determine the smolder resistance of cotton batting intended for use in futons, mattresses and upholstered furniture.

The test method should not be used to evaluate batting containing less than 75 percent cotton by weight, and it is intended to be used primarily as a quality control tool.

The procedure outlined here is a quick "on-the-spot" testing method lifted from the full regulation. ASTM's designation of the standard test is D 5238 – 98. Originally published in 1992, the standard was revised in 1998.

Test Procedure

- Gather two pieces of cotton to be tested. Each piece to be 7" x 7" x 1.9 ounces per square foot to 2.0 ounces per square foot (approximately 2 inches thick).
- Light an unfiltered cigarette.
- Place a piece of cotton on a board.
- Place cigarette in center of first piece of cotton. Lay second piece of cotton directly on top of the first piece. Place the test sample out of any direct drafts while burning.
- Record time that testing began.
- After 30 minutes, or 5 minutes after last visible sign of smoke, remove top piece of cotton. Record end-testing time.
- Measure the width of the charred cotton burn (char length) on BOTH the upper and lower pieces of cotton with a ruler. Measure ONLY the black section from the edge of the cigarette ash until it begins to turn brown.
- Record the char length to the nearest one-sixteenth inch. ANY CHAR LENGTH OF 1 INCH OR GREATER IS A FAILURE.



When You See this Mark



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