



The following commercial specification is adopted from the military document. Initial and Revision A includes all known accepted revisions, amendments, notices, and Department of Defense (DoD) engineering changes previously developed for this item. Revision B and forward include changes adopted by DoD and Industry to reflect technology and design evolution.

STIFFNESS OF CLOTH, DIRECTIONAL; CANTILEVER BENDING METHOD

1. SCOPE

1.1 This method is intended for determining the directional flexstiffness of cloth by employing the principle of cantilever bending of the cloth. Small differences in stiffness may be determined by this method, but it is not well suited for testing extremely pliable fabrics.

2. TEST SPECIMEN

2.1 Unless otherwise specified in the procurement document, the specimen shall be a rectangle of cloth 2 inches by 1 inch (51 mm by 25 mm) with the long dimension parallel to the yarns to be tested. The specimen shall be cut from the smoothest area possible which has not been previously folded or in any manner deformed.

3. NUMBER OF DETERMINATIONS

3.1 Unless otherwise specified in the procurement document, ten specimens in each of the warp and filling directions shall be tested from each sample unit.

4. APPARATUS (see FIGURE 1)

4.1 Specimen vise. Specimen vise, "V", at least 1 inch (25 mm) wide, to which the pointer indicator "I₂" is attached, and which can be rotated in a clockwise direction alternately by means of a hand crank or motor about the point O, at a rate of 60 degrees per minute.

4.2 Pendulum weighing system. Pendulum weighing system, including an angular deflection scale pointer indicator "I₁", adjustable bending plate "Q" for contacting the free end of the specimen, and a series of detachable weights "M" calibrated to the pendulum system. This system shall be pivoted for nearly frictionless rotation about the point O.