

**SEAM DETERIORATION TESTING****Application**

This procedure is used to determine the ability of fabric or polymeric film coated seating textiles to resist needle hole elongation in a sewn seam.

Apparatus and Materials Required**Sewing Machine**

Must be capable of producing a lock stitch join seam.

Needle

Size 19 with a ball/round needle point.

Thread

Tex 90/M30. Nylon (WSS-M8P25-C/latest) for top and bottom thread.

Seam Fatigue Tester

Model: Seam Fatigue Tester
Source: Schap Specialty Machine, Inc.
www.schapmachine.com

Model ATD-200L –
Source: DAIEI KAGAKU SEIKI MFG. Co. Ltd.
www.daieikagakuseiki.co.jp/en

Or any equivalent apparatus.

Calipers

Must be capable of measuring internal dimensions within a 0.01 mm accuracy.

Chemicals, materials, parts, and equipment referenced in this document must be used and handled properly. Each party is responsible for determining proper use and handling in its facilities.

Conditioning and Test Conditions

All test values are based on material conditioned for not less than 24 h prior to testing in a controlled environment of 23 +/- 2 °C and 50 +/- 5% relative humidity. Testing of the material should occur in the conditioning environment or soon after removal.

Date	Action	Revisions	Rev. 04
2018 05 22	Revised	Specimen prep and Evaluation	L. Pollard, NA
2017 08 23	Editorial	Title Change	D. Murtonen, NA
1995 09 29	Released		



Specimen Preparation

1. Cut 12 squares, 100 X 100 mm and label machine direction (warp/wales) on each cut square.
2. Assemble 3 pairs with machine direction (WMD) as shown in Figure 1, A-surface facing A-surface to create 3 {WMD} specimens. These specimens are sewn along the against machine direction edge.
3. Assemble 3 pairs of against machine direction (AMD) as shown in Figure 2, A-surface facing A-surface to create 3 {AMD} specimens. These specimens are sewn along the machine direction edge.
4. Sew the pairs 8 mm from the cut edges with a stitch length of 5-6 stitches per inch (Figure 2). Back stitch for approximately 3 stitches to lock in the thread.

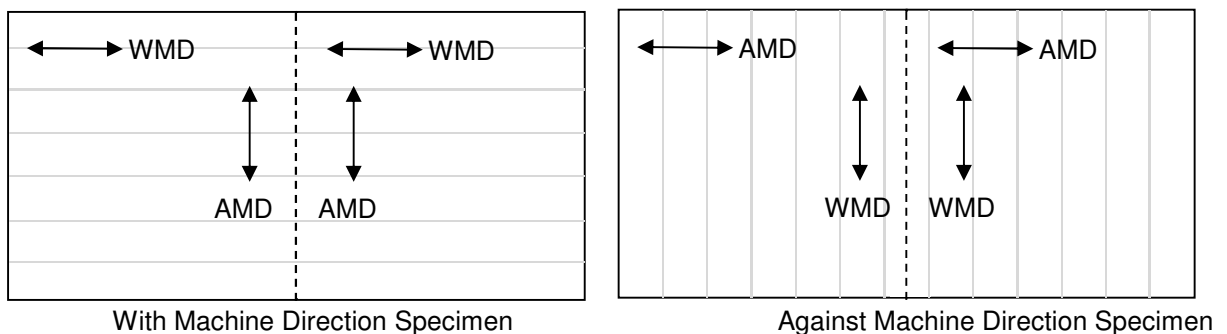


Figure 1. Alignment of 100 X 100 mm squares for machine direction and against machine direction specimens.

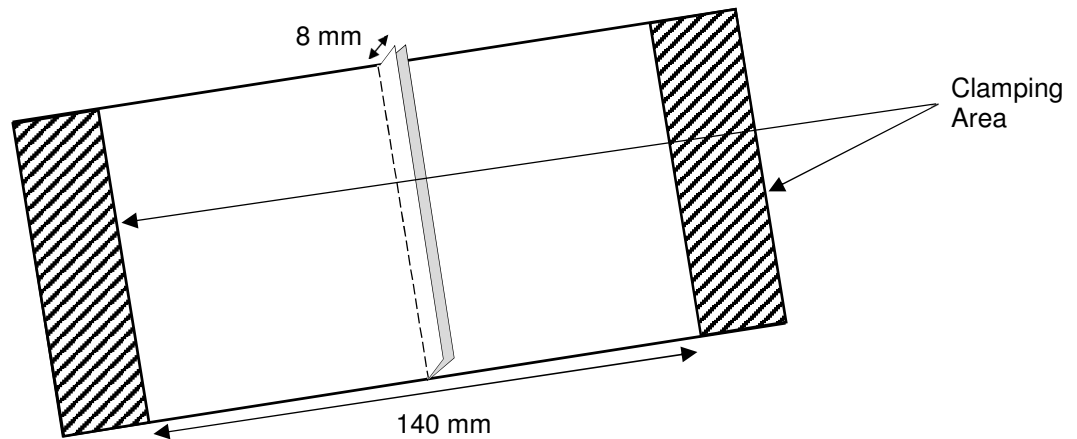


Figure 2. Sewn-Seam construction with an 8 mm seam distance and 140 mm distance between the clamps.