

British Standard Methods of test for

Footwear and footwear materials

Part 3. Uppers, textiles and threads

Section 3.4 Edgewise compressibility, upper materials

Méthodes d'essai des chaussures et des matériaux entrant dans leur confection

Partie 3. Dessus de chaussures, textiles et fils

Section 3.4 Compressibilité latérale, matériaux des empeignes

Prüfverfahren für Fussbekleidung und Fussbekleidungswerkstoffe

Teil 3. Oberleder, Textilien und Fäden

Abschnitt 3.4 Seitenkompressibilität, Oberlederwerkstoffe

NOTE. It is recommended that this Section should be read in conjunction with the information in the General Introduction to BS 5131, published separately.

1. Scope

This Section describes a method for measuring the extent to which upper materials will shorten or compress in an edgewise direction without forming pleats or wrinkles. This ability to accept compression is one of the factors that determines how cleanly the toe of the upper can be lasted. This method is applicable to all upper materials, but is most useful when comparing materials of the same basic type.

NOTE. Section 3.4 is based on SATRA* Physical test method PM44.

2. Principle

A test piece is supported in a horizontal plane by two clamps, one fixed and one movable. The movable clamp is moved towards the other causing the test piece to bend. A flat, transparent, rigid plastics bar is pressed down on the bent portion of the test piece and the degree of wrinkling, as viewed through this bar, is assessed.

3. Apparatus

The following apparatus is required.

3.1 An instrument capable of clamping a test piece in a horizontal plane, with one fixed clamp and one movable along a fixed scale.

NOTE. The SATRA Wrinkleometer STD 119, shown in figures 3.4/1 to 3, is suitable.

3.2 Transparent rigid plastics bar, 24 mm to 25 mm wide.

3.3 The test piece is held in position on the base of the instrument by two screw clamps (see figure 3.4/1). One of the clamps (B) is in a fixed position on the base while the other (A) may be moved laterally relative to the base, the amount of movement being shown by a scale. This allows the two clamps to be tightened on to the test piece a known distance apart and then clamp A is moved back to its original or zero position thus bending the test piece as shown in figure 3.4/2. The separation of the two clamps in the zero position is 25 mm.

4. Conditioning and testing atmosphere

Condition the test pieces for 48 h at $20 \pm 2^\circ\text{C}$ and $65 \pm 2\%$ relative humidity and carry out the test in this atmosphere.

5. Test pieces

Cut one strip 25 mm wide and approximately 150 mm long in each principal direction.

6. Procedure

6.1 Unscrew clamps A and B and slide the test piece into position underneath them, then clamp the test piece with clamp B. Unscrew the wing nut on the base and move clamp A to bring a suitable scale reading in line with the reference mark on the base. The scale is marked from 0 mm to 8 mm in steps of 1 mm and the 4 mm reading is usually a suitable starting point for the test. Tighten the wing nut.

*Shoe and Allied Trades Research Association.