



BS 5131 : Section 4.6 : February 1975

[Rib shear]

UDC 685.31 : 620.1 : 685.312.124 : 676.017.42 : 539.415

British Standard Methods of test for

Footwear and footwear materials

Part 4. Other components

Section 4.6 Shear strength of ribs stuck to insoles

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 having as its main purpose the determination of whether a rib attachment is strong enough for welt sewing (an operation which applies similar forces to those in the test). The test is applicable to all types of ribbed insole, or to strips of insole material with ribs affixed along the edges.

NOTE. Section 4.6 is based on SATRA* Method AM 5.

2. Principle

A force is applied to the lip of an attached insole rib, parallel to the insole surface and in the outward direction. The force is increased until failure occurs.

3. Supplementary information

In the case of strips of insole material, the procedure described in this Section requires to be completed by information on the means of attaching the ribs to the insole material. This information shall be derived from the British Standard, or other specification, for the material under test or shall be the subject of agreement between parties interested in the results of the test.

4. Test pieces

NOTE. Shear tests are usually combined with peel tests on the rib. Figures 4.6/1 and 4.6/2 show convenient combined layouts of test pieces for both tests. Section 4.7 of BS 5131 describes a procedure for the determination of resistance to peeling.

4.1 Ribbed insoles. On each of two insoles, mark out two test pieces, each 25 mm wide, across the insole rib (see figure 4.6/1).

4.2 Insole material. (See also the note to 7.2.) Cut strips of material approximately 75 mm wide and 350 mm long. If the insole material has a direction marked for cutting out, cut one strip with its length in this direction. Otherwise, cut one strip in the machine direction and one strip in the cross direction. Attach ribs to the longer edges of the strips, using the agreed method (see clause 3). Mark out four test pieces, 25 mm wide, two on each longer edge as shown in figure 4.6/2.

*Shoe and Allied Trades Research Association

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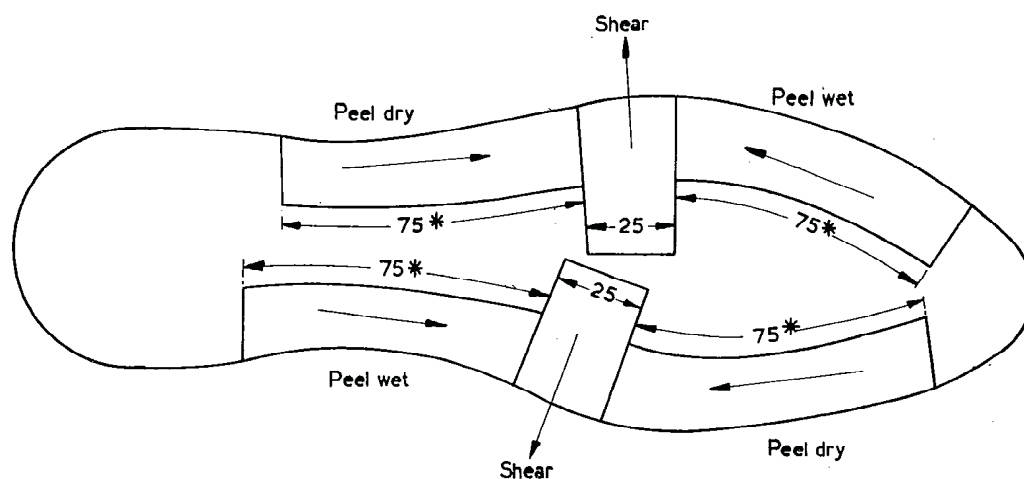
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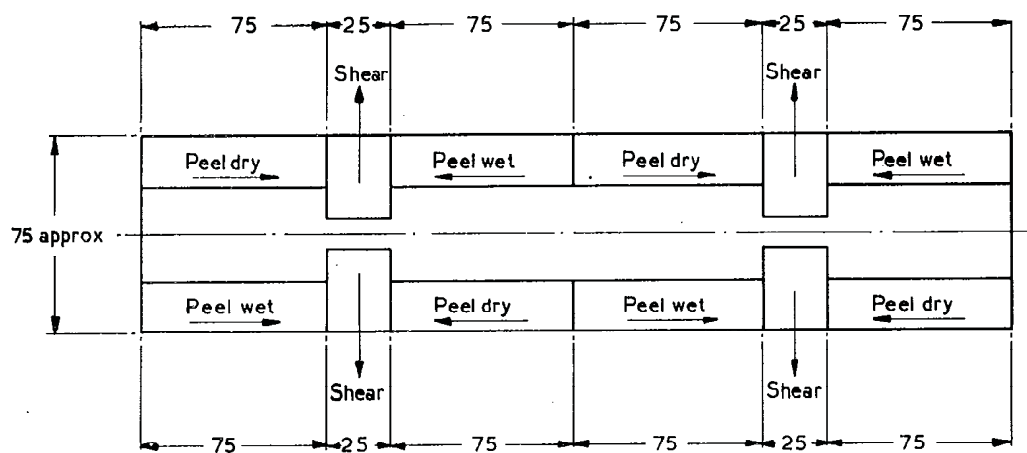
BS 5131 : Section 4.6 : 1975

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Dimensions marked thus * are approximate
All dimensions are in millimetres

Figure 4.6/1. Test piece layout for the determination both of the shear strength and the resistance to peeling of an attached rib insole



All dimensions are in millimetres

Figure 4.6/2. Test piece layout for the determination both of the shear strength and the resistance to peeling of ribs stuck to insole material