

British Standard Methods of test for

Footwear and footwear materials

Part 1. Adhesives

Section 1.6 Recommended environmental storage conditions for adhesive joints prior to heat resistance or peeling tests

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

Partie 1. Adhésifs

Section 1.6 Conditions d'ammagasinage ambiantes données à titre de recommandation pour des joints adhésifs antérieurement à des épreuves de résistance thermique ou d'écaillage

Prüfverfahren für Fussbekleidung und Fussbekleidungswerkstoffe

Teil 1. Klebemittel

Abschnitt 1.6 Empfohlene Umgebungsbedingungen für die Lagerung von Klebestellen vor Warmfestigkeits- oder Haftvermögensprüfungen

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

The performance of adhesive bonds in footwear may deteriorate in storage or in wear because of the adverse effect of environmental conditions such as natural ageing or wetting.

This Section describes a number of environmental storage conditions which may be used in the laboratory for the treatment of prepared adhesive joints in order to simulate the deterioration which may occur in practice.

2. References

This Section refers to the following standards publications:

BS 3978 Water for laboratory use

BS 5131 Methods of test for footwear and footwear materials

Subsection 1.1.1 Resistance to heat (creep test)

Subsection 1.1.2 Resistance to peeling

Subsection 1.1.3 Preparation of test assemblies for adhesion test

3. Principle

Test joints prepared under controlled conditions in the laboratory are subjected to the selected environmental storage condition. After the storage period the peel strength and/or heat resistance are determined, as appropriate, and compared with the values obtained for test pieces which have not been subjected to the environmental conditions.

These properties can be measured immediately on removal from the storage conditions or after pre-conditioning in an atmosphere at $20 \pm 2^\circ\text{C}$ and $65 \pm 2\%$ relative humidity, depending on the nature of the test.

4. Preparation of test joints

For each form of test (i.e. heat resistance or peel), the standard number of test assemblies, as given in BS 5131: Subsections 1.1.1 and 1.1.2 is required for:

- (a) each environmental storage condition;
- (b) a control test without environmental treatment.

NOTE. Testing immediately after removal from a storage condition, as in 5.2 and 5.4, and testing after reconditioning, each require the standard number of test assemblies.

Prepare the test assemblies as described in BS 5131 : Subsection 1.1.3. Condition them and cut out the test joints as described in BS 5131 : Subsections 1.1.1 and 1.1.2. Select the cut out test joints so that the two joints from an assembly are not both allocated to the same environmental treatment or to control tests.

5. Environmental storage conditions and test procedures

5.1 General. The storage conditions covered are described in 5.2, 5.3 and 5.4.

Carry out the subsequent heat resistance (creep) or peel