

BRITISH STANDARD

BS 5131 :
Section 5.3 :
1990

Methods of test for

Footwear and footwear materials

Part 5. Testing of complete footwear

Section 5.3 Resistance of complete footwear to heat

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NOTE. It is recommended that this Section should be read in conjunction with BS 5131 : Part 0, published separately.

Méthodes d'essai des chaussures et des matériaux entrant dans leur confection
Partie 5. Essais de la chaussure complète
Section 5.3 Résistance de la chaussure complète à la chaleur

Prüfverfahren für Fußbekleidung
Fußbekleidungswerkstoffe
Teil 5. Prüfung des gesamten Schuhwerks
Abschnitt 5.3 Wärmebeständigkeit des gesamten Schuhwerks

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Foreword

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CONTROL

This Section of BS 5131 has been prepared under the direction of the Textiles and Clothing Standards Policy Committee. It supersedes BS 5131 : Section 5.3 : 1975, which is withdrawn.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

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Method

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1 Scope

This Section of BS 5131 describes a qualitative method for assessing changes which take place in complete footwear on heating.

The results assist the evaluation of the resistance of shoes to exposure by heat, e.g. during shop window display, during use or during export.

The procedure can also be used as an accelerated ageing procedure prior to other footwear tests.

NOTE. The titles of the publications referred to in this standard are listed on the inside back page.

2 Principle

The complete footwear item is maintained either at 60 °C for 7 days or at 50 °C for 14 days and is examined at intervals for visible signs of damage. At the end of this period a more detailed examination is made.

NOTE. This examination may include laboratory tests

3 Apparatus¹⁾

3.1 Oven, thermostatically controlled with fan circulation (air speed approximately 5 m/s), maintaining a temperature of 60 ± 1 °C or 50 ± 1 °C.

NOTE. Although 60 °C and 50 °C have been selected as the temperatures for this method of test, the procedure is capable of modification, for particular purposes, e.g. where tropical end use is envisaged, by using other temperatures.

4 Procedure

4.1 Place the complete footwear on its side in the oven (3.1) either at 60 ± 1 °C or at 50 ± 1 °C. Examine daily, or more frequently, and note any signs of separation of the sole and upper or any other deleterious changes in components or assembly. Describe these using words and/or sketches.

4.2 Continue testing for 7 days at 60 ± 1 °C or 14 days at 50 ± 1 °C. At the end of this period, examine the footwear while still hot (see 4.1). Allow the footwear to cool to room temperature and make a detailed examination of its condition.

Where a specific request has been made, carry out laboratory tests relevant to any separation of, or deleterious changes to, components or assembly (such as BS 5131 : Sections 5.1 or 5.4 where some separation of the sole from the upper appears to have taken place or where there is a need to investigate the effect of the heat ageing treatment on sole adhesion). Where no such specific request has been made, dismantle the footwear and record any separation of, or deleterious changes to, components or assembly.

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5 Expression of results

Express the results of the test with regard to each of the following aspects:

- whether or not any separation of the sole and upper has taken place;
- whether or not deleterious changes in components or assembly have taken place;
- the length of time from the start of the test until the onset of separation or other deleterious changes, where these occur;
- a description, using words and/or sketches, of the extent of separation or other deleterious changes, where these occur;
- the results of any laboratory tests referred to in 4.2.

6 Test report

The test report shall include the following items:

- temperature and duration of test;
- results of the test, expressed in accordance with clause 5;
- nature and full identification of the sample;
- reference to this method of test, i.e. BS 5131 : Section 5.3;
- date of testing.

¹⁾ For information on the availability of suitable apparatus to perform this test, apply to Enquiry Section, BSI, Linford Wood, Milton Keynes, MK14 6LE, quoting the number of this standard and the clause number referring to the items concerned. Enclose a stamped addressed envelope for reply.