

British Standard Methods of test for

Footwear and footwear materials

Part 6. Codes of practice

Section 6.2 Code of practice for the identification in footwear wear trials of major weaknesses in design or construction and the assessment of fitness-for-purpose

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

Partie 6. Codes de bonne pratique

Section 6.2 Code de bonne pratique pour l'identification lors des essais d'usure des articles chaussants des principaux points faibles du point de vue conception ou exécution ainsi que de la détermination de l'aptitude à l'emploi

Prüfverfahren für Fussbekleidung und Fussbekleidungswerkstoffe

Teil 6. Richtlinien

Abschnitt 6.2 Richtlinie für die Bezeichnung von besonderen Schwächen der Konstruktion oder Bauart in Prüfungen von Fußbekleidung und die Beurteilung der Zweckseignung

This code represents a standard of good practice and therefore takes the form of recommendations. Compliance with it neither confers immunity from relevant statutory and legal requirements, nor can it be taken as a guarantee that all footwear production of the type tested will last for the full wear trial duration.

Foreword

This code of practice has been prepared under the direction of the Clothing Standards Committee at the request of representatives of consumer bodies, retailers and the footwear industry, with the object of regularizing procedures for wear trials on new styles and constructions of footwear.

1. Scope

This code makes recommendations to assist manufacturers and distributors in carrying out wear trials on new styles of footwear to identify major weaknesses in design or construction and to assess fitness-for-purpose. It covers the number of pairs of footwear to be used in the trial, the selection of wearers, the length of the trial, and the procedure for judging whether the footwear has completed the trial satisfactorily.

The code defines a number of wear trial categories which differ in the amount and type of wear, and indicates appropriate types of footwear for each category. There are two durations of wear for each category; the shorter, for identifying major weaknesses in design or construction, and the longer, for assessing fitness-for-purpose.

This code is not intended to form the basis of a continuous quality control system.

Wear trials designed to give a direct comparison of the performance of different materials or constructional features are covered in BS 5131 : Section 6.1*.

*In course of preparation.

2. Reference

This Section refers to the following standards publication:

- BS 5131 Methods of test for footwear and footwear materials
- Section 6.1 Code of practice in footwear trials for the comparative evaluation of footwear

3. Definitions

For the purposes of this Section of BS 5131 the following definitions apply.

- 3.1 footwear.** All types of boots, shoes, sandals, slippers, etc.
- 3.2 subjects.** The wearers of the footwear for the duration of the trial.
- 3.3 wear day.** Approximately eight hours' (continuous or non-continuous) duration of wear.
- 3.4 activity session.** One normal period of the specific sport or activity.
- 3.5 process fault.** A deviation from good manufacturing practice that leads to a failure in wear.
- 3.6 failure.** Any defect that, if occurring at the corresponding stage of normal wear, would permit the consumer to return the shoes with a justified complaint.

4. Recommendations for the conduct of the trial

- 4.1** At least six pairs of the footwear, preferably covering a range of sizes, should be used for the trial.

4.2 Subjects should be selected who can be relied upon to wear and return the footwear as requested.

4.3 Subjects whose present footwear shows signs of an abnormal wear pattern should be rejected.

4.4 Subjects selected should be of the sex, approximate age and occupation appropriate to the intended use of the footwear. Footwear intended for a special purpose or activity, e.g. football boots, should be worn only by subjects engaged in such an activity during the trial.

NOTE. Accelerated results may be produced by the selection of known hard wearers or particularly harsh environments, but the approximate relationship to normal wear should be known.

4.5 The footwear should be fitted to the subjects to a commercial standard. It is important to achieve a good standard of fit in order to ensure meaningful results from the trial.

NOTE. Where appropriate, hosiery should be worn both at fitting and for the duration of the trial.

4.6 The wear trial category appropriate to the footwear should be selected using the examples given in table 6.2/1 as a guide. The duration of the trial should then be shown in table 6.2/2 for that category and type of trial.

4.7 It would be advantageous if the intervals of wear could be recorded by the subject.

4.8 At least two-thirds of the trial footwear should be examined at intervals corresponding to approximately 10 %, 20 %, 50 % and 100 % of the appropriate full fitness-for-purpose trial duration and any failures should be recorded at each stage.

NOTE. If the trial is to establish only that there are no major weaknesses in design or construction then only the first two of these examinations (i.e. at the 10 % and 20 % stages) need be made.

4.9 As deemed necessary by the organizers, it is permissible to replace components during the trial to allow other aspects of the footwear to be evaluated. Necessary replacements should be noted and should not affect the fit or the normal dynamic function of the footwear.

4.10 Any corrective action that involves a major constructional or component change will necessitate a repeated wear trial.

5. Expression of results

5.1 Results and all relevant information should be reported in a standardized format. Table 6.2/2 represents an example of a suitable form of report.

5.2 All failures should be reported, for example under 'Comments' in table 6.2/2, and causes assigned for possible corrective action to be taken. (See 4.10.)

5.3 The footwear will be deemed to have passed a trial to identify major weaknesses in design or construction only if, within the appropriate wear trial duration given in table 6.2/1, no failures occur that can be attributed clearly to design or construction alone and not to process faults.

5.4 The footwear will be deemed to have passed a trial to assess fitness-for-purpose only if, at the end of the appropriate wear trial duration given in table 6.2/1, not more than 5 % of the footwear finally examined (or one shoe if the sample size is less than ten pairs) has failed owing to either process faults or faults resulting from weaknesses in design, construction or materials.

Table 6.2/1 Wear trial categories and duration

Wear trial category	Duration of full wear trial		Examples of typical footwear types in the category
	Identification of major weaknesses in design or construction	Fitness-for-purpose	
A	5 wear days	25 wear days	Pram shoes
B	10 wear days	50 wear days	Adult fashion boots and shoes Children's fashion boots and shoes Infants' footwear Slippers Sandals
C	20 wear days	100 wear days	Town and casual shoes Children's school shoes and basic sandals Occupational footwear
D	30 wear days	150 wear days	Heavy duty industrial and safety footwear Walking boots
E	10 activity sessions	50 activity sessions	Training shoes Sports footwear Dancing shoes
F	15 activity sessions	75 activity sessions	Heavy duty sports footwear

NOTE. The examples given for each category are intended as a general guide to the trial duration to be selected. Individual manufacturers may wish to evaluate their products in an alternative category.