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Resilient floor coverings — Determination of wear resistance —

Part 1: Stuttgart test

The European Standard EN 660-1:1999, with the incorporation of amendment A1:2003, has the status of a British Standard

ICS 97.150

National foreword

This British Standard is the English language version of EN 660-1:1999, including amendment A1:2003.

The UK participation in its preparation was entrusted to Technical Committee PRI/60, Resilient floor coverings, which has the responsibility to:

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 11 and a back cover.

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English version

Resilient floor coverings — Determination of wear resistance — Part 1: Stuttgart test

(includes amendment A1:2003)

Revêtements de sol résilients —
Détermination de la résistance à l'usure —
Partie 1: Essai de Stuttgart
(inclut l'amendement A1:2003)

Elastische Bodenbeläge —
Ermittlung des Verschleißverhaltens —
Teil 1: Stuttgarter Prüfung
(enthält Änderung A1:2003)

This European Standard was approved by CEN on 2 April 1999; amendment A1 was approved by CEN on 17 January 2003.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 134, Resilient and textile floor coverings, the Secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 1999, and conflicting national standards shall be withdrawn at the latest by October 1999.

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Foreword to amendment A1

This document (EN 660-1:1999/A1:2003) has been prepared by Technical Committee CEN/TC 134, Resilient, textile and laminate floor coverings, the Secretariat of which is held by BSI.

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1 Scope

This European Standard describes the Stuttgart method for determining the wear resistance of the wear layer of polyvinyl chloride floor coverings under laboratory conditions.

The method is applicable to polyvinyl chloride floor coverings with smooth surfaces. It can be used to determine the wear resistance of surfaces against abrasion and particularly for ranking different wear layer types within one type of product. It is not appropriate for comparing the wear resistance of different materials, e.g. rubber and polyvinyl chloride.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 436, *Resilient floor coverings — Determination of density*.

3 Principle

A special wear testing apparatus simulates the rotating movements combined with sliding stress which are caused by the shoes of users on floor coverings, e.g. close to doors, cupboards, wash-basins etc. The abrasive medium is emery paper. Alternating stress cycles are carried out with emery paper and leather and indentation stress with steel tacks is part of each cycle.

4 Definition

For the purposes of this European Standard the following definition applies.

wear

loss of material from the surface of a floor covering

5 Apparatus and materials

5.1 *Wear testing apparatus*, with the essential dimensions shown in Figure 1, consisting of the following.

5.1.1 *A roller table*, which moves horizontally to and fro (i.e. one double travel movement) along a $(106 \pm 0,5)$ mm path. The number of double travel movements is (40 ± 1) per minute.

5.1.2 *A rotating clamping plate for the test piece*, revolving at $(4,0 \pm 0,1)$ revolutions per minute mounted on the roller table.

5.1.3 *A pendulum*, weighing $(17 \pm 0,1)$ kg with two swivel segments with cylindrically arched undersides, radius 225 mm (abrading segment and milling segment). The abrading segment is covered with leather and fitted with devices to stretch emery paper over this surface.

5.1.4 *Two roller bearings*, one fixed to the stand which moves in a track in the pendulum and the other fixed to the pendulum which moves in a track mounted on the table. Both ensure that the movements of roller table and pendulum are linked.

5.1.5 *A suction and blower device*, with apertures which cover the test area.