BS EN 1815:2025

BSI Standards Publication

Resilient, modular mechanical locked floor coverings (MMF) and laminate floor coverings — Assessment of static electrical propensity

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National foreword

This British Standard is the UK implementation of EN 1815:2025. It supersedes BS EN 1815:2016, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PRI/60, Resilient and Laminate Floor Coverings.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Resilient, modular mechanical locked floor coverings (MMF) and laminate floor coverings - Assessment of static electrical propensity

Revêtements de sol résilients, modulaires à verrouillage mécanique (MMF) et stratifiés - Évaluation à la propension à l'accumulation de charges électrostatiques

Elastische, modulare mechanisch verriegelnde Bodenbeläge (MMF) und Laminat-Bodenbeläge - Beurteilung des elektrostatischen Verhaltens

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European foreword

This document (EN 1815:2025) has been prepared by Technical Committee CEN/TC 134 “Resilient, textile, laminate and modular mechanical locked floor coverings”, the secretariat of which is held by NBN.

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of an identical text or by endorsement, at the latest by April 2026, and conflicting national standards shall be withdrawn at the latest by April 2026.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 1815:2016.

EN 1815:2025 includes the following significant technical changes with respect to EN 1815:2016:

— modular mechanical locked floor coverings were added to the Title and Scope;

— correction of the normative references in Clause 2 related to the new technical parameter;

— the test principle description in Clause 4 was divided in method A and B;

— a description of a conditioned room was added as 5.1;

— technical parameters of the new EPDM sole in 5.5;

— Clause 6, “Preparation of test pieces for method A” was integrated;

— 8.2.2 “Discharging” was modified;

— the Annex A with the description of the test sandals was added and Figure A.1 was replaced.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

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1 Scope

This document specifies a method for determining the body voltage (BV) generated when a person wearing standardized footwear walks on a resilient, modular mechanical locked floor coverings (MMF) or laminate floor covering. The test method can be used under laboratory conditions as well as *in situ*.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN ISO 1183-1, *Plastics — Methods for determining the density of non-cellular plastics — Part 1: Immersion method, liquid pycnometer method and titration method (ISO 1183-1)*

EN IEC 61340-4-1, *Electrostatics — Part 4-1: Standard test methods for specific applications — Electrical resistance of floor coverings and installed floors (IEC 61340-4-1)*

ISO 37, *Rubber, vulcanized or thermoplastic — Determination of tensile stress-strain properties*

ISO 48-2, *Rubber, vulcanized or thermoplastic — Determination of hardness —Part 2: Hardness between 10 IRHD and 100 IRHD*

ISO 48-4, *Rubber, vulcanized or thermoplastic — Determination of hardness — Part 4: Indentation hardness by durometer method (Shore hardness)*

ISO 4649, *Rubber, vulcanized or thermoplastic — Determination of abrasion resistance using a rotating cylindrical drum device*

ISO 9407, *Footwear sizing — Mondopoint system of sizing and marking*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
static electrical propensity
tendency for charge to be generated by a person walking on the floor covering

3.2
earthed
connected to a reference earth

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4 Principle

4.1 Method A

A floor covering is evaluated for static electrical propensity by means of a walking test with an operator using a pair of standard sandals, walking over the floor covering situated over an earthed metal base plate (resilient and MMF floor coverings) or over a PE-foam/PE-foil situated over an earthed metal base plate (laminate floor coverings).

4.2 Method B

A floor covering is evaluated for static electrical propensity by means of a walking test with an operator using a pair of standard sandals, walking over the floor covering in *in situ* conditions.

5 Apparatus

5.1 Conditioned room (Method A)

Environmental conditions for conditioning before testing and the test provided in a room or a chamber with following specifications:

a temperature of (23 ± 2) °C and relative humidity of (25 ± 5) %.

5.2 Substructure for resilient and MMF floor coverings (Method A)

An earthed metal base plate shall be used, e.g. a stainless-steel plate of at least (1,8 × 0,9) m and approximately 1 mm thick.

5.3 Substructure for laminate floor coverings (Method A)

5.3.1 Laminate floor coverings without attached sound absorbing material

A PE foam sheet of approximately 220 cm × 120 cm and (3 ± 0,5) mm thick, with a vertical resistance ≥ 10^{13} Ω (measured at 500 V DC according to EN IEC 61340-4-1) shall be used. This PE foam sheet[1] is laid on an earthed metal base plate, as specified in 5.2.

NOTE In case of underlay material is not available in one piece, it is appropriate to use tape to create a sufficient area from the origin foam roll material.

5.3.2 Laminate floor coverings with attached sound absorbing material

A water vapour barrier PE foil of approximately 220 cm × 120 cm and (0,2 ± 0,1) mm thick is laid on a earthed metal base plate, as specified in 5.2.

5.4 Test sandals

The test sandals (see Annex A) shall be reserved exclusively for use in this test method. The test sandals shall be open sandals of European size 42 (Mondopoint size 270/100) and with straps mounted to fit various foot sizes. An EPDM sole material (5.5) shall be used. The resistance between the metal plate and the operator standing on it wearing the sandals with the soles shall be (10^8 to 10^9) Ω to be measured at a voltage of 100 V.

[1] The PE-foam (EN 1815 / ISO 6356) traded by EPH GmbH, Zellescher Weg 24, 01217 Dresden in Germany (Email: info@eph-dresden.de, Web: www.eph-dresden.de) is an example for a suitable PE-foam product available commercially. This information is given for the convenience of users of this European standard and does not constitute an endorsement by CEN of this product. Equivalent products may be used if they can be shown to lead to the same results.

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