
**Footwear — Determination of
coefficient of friction for footwear and
sole components — Test method**

*Chaussures — Détermination du coefficient de frottement pour les
chaussures et éléments de semelle — Méthode d'essai*



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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 216, *Footwear*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 309, *Footwear*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Footwear — Determination of coefficient of friction for footwear and sole components — Test method

1 Scope

This document provides a method for determining the coefficient of friction between footwear and floorings under conditions simulating those experienced in the phases of a typical walking step when slip is most likely to occur.

The method is applicable to all types of footwear and footwear components, outsole units, heel top pieces (top lifts) and sheet soling materials, excepting PPE footwear (Personal Protective Equipment) and special purpose footwear containing spikes, metal studs or similar.

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.

ISO 13287:2019, *Personal protective equipment — Footwear — Test method for slip resistance*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 13287:2019 apply.

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

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

4 Principle

The footwear item and underfoot surface are brought into contact, subjected to a specified vertical force for a short period of static contact then moved horizontally relative to one another at a constant speed. The horizontal frictional force is measured at a given time after movement starts and the dynamic coefficient of friction is calculated for the particular conditions of the test.

5 Apparatus and materials

Use apparatus and materials in ISO 13287:2019, Clause 4.

NOTE Regarding standard shoemaking last in ISO 13287:2019, 4.1.1, other lasts with the same dimensions of STM603L^{TM1)} lasts can also be used.

Additional materials/accessories to test samples according to [8.1](#) to [8.6](#):

5.1 Cellulosic insole material of around 2 mm in thickness for testing soles which are going to be used in the footwear with an insole (for testing according to [8.2](#) to [8.6](#)).

1) STM603LTM is the trade name of a product supplied by SATRA (<https://www.satra.com/>). This information is given for the convenience of users of this document and does not constitute an endorsement by ISO of the product named. Equivalent products may be used if they can be shown to lead to the same results.