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Footwear — Test methods for shanks — Longitudinal stiffness

Chaussures — Méthodes d'essai pour cambrions — Rigidité longitudinale

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Foreword

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This document was prepared by Technical Committee ISO/TC 216, *Footwear*.

This second edition cancels and replaces the first edition (ISO 18896:2006), which has been technically revised.

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Footwear — Test methods for shanks — Longitudinal stiffness

1 Scope

This document specifies a method for assessing the stiffness in the longitudinal direction of steel shanks used for the reinforcement of the waist region of women's shoes and of some men's and children's shoes.

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 18454, *Footwear — Standard atmospheres for conditioning and testing of footwear and components for footwear*

3 Terms and definitions

For the purposes of this document, the following terms and definitions 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/

3.1
longitudinal stiffness
stiffness in the longitudinal direction of shanks as determined by measuring the deflection of the shank under specified conditions when loaded with a specified force

4 Apparatus and materials

The following apparatus and material shall be used:

4.1 Suitable test machine for the determination of the stiffness in the longitudinal direction of steel shanks, with:

a) **A heel end clamp**, capable of clamping a fluted shank securely without crushing the flute and of dimensions such that 32 mm ± 1 mm of the shank are clamped.

   The angle of the clamp shall be capable of adjustment to ensure that the portion of shank to which a force is applied lies horizontal.

b) **A means of applying a downward force to the forward end of the shank**, of 2 N, 4 N, 6 N and 8 N with a tolerance of ±5 %.

c) **A means of measuring the vertical deflection of the shank at the point where the force is applied**, with an accuracy of ±0,025 mm.

4.2 Laboratory timer or similar, with an accuracy of ±0,1 s.

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