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**Footwear — Test methods for hollow  
and compact heels with top pieces —  
Top piece attachment strength**

*Chaussures — Méthodes d'essai pour les talons creux et pleins avec  
bonbouts — Résistance de fixation des bonbouts*



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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](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

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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](http://www.iso.org/members.html).

# Footwear — Test methods for hollow and compact heels with top pieces — Top piece attachment strength

## 1 Scope

This document specifies a method for determining the attachment pull-out strength of heel top pieces.

This method is applicable to all kind of heels with top pieces.

## 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 7500-1, *Metallic materials — Calibration and verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Calibration and verification of the force-measuring system*

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

## 3 Terms and definitions

No terms and definitions are listed in this document.

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 Apparatus

**4.1 A tensile testing machine** with the following:

- A jaw separation rate of  $(100 \pm 10)$  mm/min.
- A suitable force range for the sample to be tested, with 2 % accuracy, as specified for Class 2 in ISO 7500-1. For most cases, the adequate force range is 0 N to 1 000 N.
- A means of recording the force, as specified in ISO 7500-1, Class 2.
- A clamping device comprising (see [Figure 1](#)):
  - jaws, whose central shafts are aligned in the direction of the load applied, that is perpendicular to the external edges of the jaws. The upper and lower jaws lie on the same plane,
  - jaws manufactured in such a way that they are able to hold the test-piece and prevent it from slipping, and their edges do not cut or damage the test-piece.