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# Footwear — Performance requirements for components for footwear — Shanks

Chaussures — Exigences de performance pour les composants des chaussures — Cambrions



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# **Foreword**

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

In exceptional circumstances, when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example), it may decide by a simple majority vote of its participating members to publish a Technical Report. A Technical Report is entirely informative in nature and does not have to be reviewed until the data it provides are considered to be no longer valid or useful.

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.

ISO/TR 20883 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 309, *Footwear*, in collaboration with Technical Committee ISO/TC 216, *Footwear*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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# Footwear — Performance requirements for components for footwear — Shanks

# 1 Scope

This Technical Report establishes the performance requirements for shanks components for footwear (not for finished footwear), irrespective of the material, in order to assess the suitability for the end use and/or fitness for purpose. It also establishes the test methods to be used to evaluate the compliance with the requirements.

This Technical Report applies to shanks for all kinds of footwear as defined in Clause 3.

This Technical Report is intended to be used as a reference between the manufacturer and the supplier. It is not intended for third party certification of finished shoes destined for the consumer.

#### 2 Normative references

The following referenced documents are indispensable for the application 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 31-0, Quantities and units — Part 0: General principles

ISO 17709, Footwear — Sampling location, preparation and duration of conditioning of samples and test pieces

ISO 18895, Footwear — Test methods for shanks — Fatigue resistance

ISO 18896, Footwear — Test methods for shanks — Longitudinal stiffness

EN ISO 19952, Footwear — Vocabulary

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 19952 apply.

# 4 Requirements

#### 4.1 General

This Technical Report establishes performance (essential) requirements, all of which shall be taken into account.

No performance requirements are specified for high fashion footwear.

The results of each single analytical determination, as well as the average values, shall be rounded off in accordance with ISO 31-0.

When taken from finished footwear, samples shall be prepared in accordance with ISO 17709.

## 4.2 Performance requirements for shanks components

See Table 1.

Table 1 — Test methods and properties for various types of footwear

Test method	Property	Requirement
ISO 18895	Fatigue resistance	Heel height, measured vertically at back
		less than 50 mm ⇒ 3 000 cycles
		50 mm to 74 mm ≥ 8 000 cycles
		75 mm to 99 mm ≥ 20 000 cycles
		100 mm and over ≽ 60 000 cycles
ISO 18896	Longitudinal stiffness	Heel height, measured vertically at back
		less than 50 mm ⇒ 400 kN mm²
		50 mm to 74 mm $\geqslant$ 800 kN mm <sup>2</sup>
		75 mm to 99 mm $\geqslant$ 1 200 kN mm <sup>2</sup>
		100 mm and over $\geqslant$ 1 600 kN mm <sup>2</sup>

# 5 Marking and labelling

Marking and labelling is optional.

If reference to this Technical Report is made, only shanks complying with all the essential requirements can be marked. In this case, this shall be clearly marked by the manufacturer either directly on the product or by a label with the following additional information.

- a) The manufacturer's name, trade mark or identification mark.
- b) Heel height, in millimetres.
- c) Reference to this Technical Report.
- d) If the component complies, additional requirements agreed upon between the component supplier and the footwear manufacturer may be specified in the marking or label making reference to the correspondent subclause.

Any reference to compliance with this Technical Report shall not be put in a part of the shank which could be visible when the footwear is finished.



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