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**Footwear — Test methods for insoles —
Resistance to stitch tear**

*Chaussures — Méthodes d'essai applicables aux premières de montage —
Résistance au déchirement des points de couture*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

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.

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

International Standard ISO 20876 was prepared by the European Committee for Standardization (as EN 12782:1999) and was adopted, under a special "fast-track procedure", by Technical Committee ISO/TC 216, *Footwear* in parallel with its approval by the ISO member bodies.

Annex A of this International Standard is given for information only.

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 309 "Footwear", the secretariat of which is held by AENOR.

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of an identical text or by endorsement, at the latest by June 2000, and conflicting national standards shall be withdrawn at the latest by June 2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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1 Scope

This European standard describes a method for evaluating the ability of an insole, irrespective of the material, to hold stitches, or to take clenched metal fastenings. The method has become accepted as a general quality criterion for insole materials even where attachment is by means of adhesives.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to, or revisions of, any of these publications apply to this European Standard only when incorporated into it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 10002-2	<i>Metallic materials – Tensile testing – Part 2: Verification of the force measuring system of the tensile testing machines</i>
EN 12222	<i>Footwear – Standard atmospheres for conditioning and testing of footwear and components for footwear</i>
prEN 13400:1998	<i>Footwear – Sampling location of components for footwear</i>

3 Terms and definitions

For the purposes of this standard the following definition applies:

3.1

resistance to stitch tear

force required to pull a loop of wire of specified dimensions through a test specimen of insole material

4 Apparatus and material

The following apparatus and material shall be used:

4.1 Drill, fitted with a twist drill bit, with diameter of 1,60 mm \pm 0,01 mm.

4.2 Drilling jig, to ensure accurate spacing of 8,0 mm \pm 0,2 mm between the centres of each pair of holes (see figure 1) in the test piece.

4.3 Steel wire, 150 mm in length, with a diameter of 0,90 mm \pm 0,01 mm (20 SWG). This is formed over a 7 mm diameter mandrel into a loop with parallel arms of equal length by applying a force of 1,5 kN to 2 kN to each end of the wire so that the shape of the loop conforms to that of the mandrel.

NOTE Loops which have become mis-shapen by use can be reused, provided that the irregularities are removed, over the forming mandrel.

4.4 Tensile testing machine, The tensile testing machine shall comply with the requirement of EN 10002-2, to an accuracy corresponding to class 2, with a constant rate of transverse of 100 mm/min \pm 20 mm/min. Autographic recording of force or a maximum force pointer is recommended.

4.5 Attachment to the tensile testing machine, consisting of the following two parts: