



**SLOVENSKI STANDARD**  
**SIST EN ISO 22254:2005**

**01-december-2005**

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**SIST EN 28627:2000**

**SIST EN 28627:2000/AC1:2000**

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Dentistry - Manual toothbrushes - Resistance of tufted portion to deflection (ISO 22254:2005)

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Zahnheilkunde - Handzahnbursten - Biegefestigkeit der Besteckungsfläche (ISO 22254:2005)

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Art dentaire - Brosses a dents manuelles - Résistance a la déflexion de la surface garnie (ISO 22254:2005)

**Ta slovenski standard je istoveten z: EN ISO 22254:2005**

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**ICS:**

97.170

Oprema za nego telesa

Body care equipment

**SIST EN ISO 22254:2005**

en

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 22254**

August 2005

ICS 97.170

Supersedes EN 28627:1990

English Version

## Dentistry - Manual toothbrushes - Resistance of tufted portion to deflection (ISO 22254:2005)

Art dentaire - Brosses à dents manuelles - Résistance à la déflexion de la surface garnie (ISO 22254:2005)

Zahnheilkunde - Handzahnbürsten - Biegefestigkeit der Besteckungsfläche (ISO 22254:2005)

This European Standard was approved by CEN on 8 August 2005.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

**EN ISO 22254:2005 (E)****Foreword**

This document (EN ISO 22254:2005) has been prepared by Technical Committee ISO/TC 106 "Dentistry" in collaboration with Technical Committee CEN/TC 55 "Dentistry", the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by February 2006, and conflicting national standards shall be withdrawn at the latest by February 2006.

This document supersedes EN 28627:1990.

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

**Endorsement notice**

The text of ISO 22254:2005 has been approved by CEN as EN ISO 22254:2005 without any modifications.

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INTERNATIONAL  
STANDARD

ISO  
22254

First edition  
2005-08-15

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**Dentistry — Manual toothbrushes —  
Resistance of tufted portion to deflection**

*Art dentaire — Brosses à dents manuelles — Résistance à la déflexion  
de la surface garnie*

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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 2.

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 document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 22254 was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 7, *Oral care products*.

This first edition cancels and replaces ISO 8627:1987.

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**ISO 22254:2005(E)****Introduction**

The stiffness of the tufted area of a manual toothbrush has been of great concern for both consumers and manufacturers. This International Standard provides a test method for determining the resistance of the tufted portion to deflection, which could be used to derive a stiffness as described in Annex A. However, this International Standard does not cover stiffness of manual toothbrushes and its classification. For stiffness determination, the measurement of the tufted area is required, but the result of the measurement varies over a wide range depending on the method of the measurement and the shape of the tuft holes. Therefore, the tufted area and stiffness determinations are described in Annex A. Since the perception of stiffness differs amongst different countries, stiffness may be classified differently in each country.

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# Dentistry — Manual toothbrushes — Resistance of tufted portion to deflection

## 1 Scope

This International Standard specifies a test method for determining the resistance of the tufted portion of manual toothbrushes to deflection. This International Standard is applicable to toothbrushes having a conventional, flat trim design and may not be applicable to toothbrushes with other designs. The results obtained with this International Standard may not correspond to consumer perceptions of the stiffness of toothbrush filaments.

## 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 1942 (all parts), *Dentistry — Vocabulary*

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 1942-1 to ISO 1942-5 and the following apply.

### 3.1

#### **manual toothbrush**

hand-powered device primarily for cleaning surfaces of teeth, the working end of which carries filaments

### 3.2

#### **brush head**

working end of a toothbrush to which the filaments are attached

### 3.3

#### **filament**

single strand within the brush head

### 3.4

#### **tuft**

group of filaments gathered together and attached to the brush head

### 3.5

#### **tuft hole surface**

surface of the tuft holes, which can be convex, triangular or plane and which is limited by a peripheral tangent line to the outer tuft holes

### 3.6

#### **tuft hole plane**

plane between the base of the tufts (where they meet the face of the brush) at the top of the brush head and the base of the tufts at the bottom of the brush head