# INTERNATIONAL STANDARD

ISO 8442-7

First edition 2000-12-01

Materials and articles in contact with foodstuffs — Cutlery and table holloware —

Part 7:

Requirements for table cutlery made of silver, other precious metals and their

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Matériaux et objets en contact avec les denrées alimentaires — Coutellerie et orfèvrerie de table —

Partie 7: Exigences relatives à la coutellerie de table en argent massif, autres métaux précieux et leurs alliages



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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.

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 member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this part of ISO 8442 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 8442-7 was prepared by the European Committee for Standardization (CEN) in collaboration with ISO Technical Committee TC 186, *Cutlery and table and decorative metal hollow-ware*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

Throughout the text of this standard, read "...this European Standard..." to mean "...this International Standard...".

ISO 8442 consists of the following parts, under the general title *Materials* and articles in contact with foodstuffs — Cutlery and table holloware:

ISO 8442-7:2000

- Part 1: Requirements for cuttlery for the preparation of food 7 and 2 and 2
- Part 2: Requirements for stainless steel and silver-plated cutlery
- Part 3: Requirements for silver-plated table and decorative holloware
- Part 4: Requirements for gold plated cutlery
- Part 5: Specification for sharpness and edge retention test of cutlery
- Part 6: Lightly silver-plated table holloware protected by lacquer
- Part 7: Requirements for table cutlery made of silver, other precious metals and their alloys
- Part 8: Requirements for silver table and decorative holloware

Annexes A to C form a normative part of this part of ISO 8442. Annex D is for information only.

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# **Foreword**

The text of EN ISO 8442-7:1999 has been prepared by Technical Committee CEN/TC 194 "Utensils in contact with food", the secretariat of which is held by BSI, in collaboration with Technical Committee ISO/TC 186 "Cutlery and table and decorative metal hollow-ware".

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 January 2001, and conflicting national standards shall be withdrawn at the latest by January 2001.

Attention is drawn to the European Community Directives relative to materials in contact with foodstuffs, in particular Directive 89/109/EEC

EN ISO 8442 consists of the following parts:

- Part 1:Requirements for cutlery for the preparation of food
- Part 2: Requirements for stainless steel and silver-plated cutlery
- Part 3: Requirements for silver-plated table and decorative holloware
- Part 4: Requirements for gold-plated cutlery
- Part 5: Specification for sharpness and edge retention test of cutlery
- Part 6: Lightly silver plated table hollowere protected by a lacquer
- Part 8: Requirements for silver table and decorative holloware

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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 specifies material and performance requirements for table cutlery made of silver, other precious metals and their alloys (knives with stainless steel blades, forks, spoons, carving sets, ladles and other pieces).

It does not include requirements for design, size, type of finish, blade flexibility, or similar characteristics which are matters of personal choice or which can be readily assessed by the purchaser at the point of sale. No sampling provisions are included in this standard, the requirements specified are applicable for each and every item produced.

### 2 Normative references

This European Standard incorporates by dated 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 in it by amendment or revision (including amendments).

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ISO 4481: 1977 Cutlery and flatware Anomenclature VIEW
ISO 6508: 1986 Metallic materials - Hardness test - Rockwell test (scales A - B - C - D - E -F -G - H - K)
EN 10088-1: 1995 Stainless Steels, Part 1: List of stainless steels
prEN 1904:1995 Precious metals Solders used with precious metal jewellery alloys https://standards.iteh.ai/catalog/standards/sist/91fa9cd1-b715-470d-8ca5-642d13433e0b/iso-8442-7-2000
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# 3 Terms and definitions

For the purposes of this European Standard the terms and definitions given in annex of ISO 4481: 1977 apply together with the following.

# 3.1

# unsharpened knives

knives with an unsharpened blade used for cutting soft foods

NOTE They are not made of martensitic stainless steel. Examples are butter knife, fish serving knife, ice cream knife, fish knife, spreading knife, cheese knife.

### 4 Materials

# 4.1 General

The table cutlery shall be made of silver, other precious metals and their alloys with a minimum standard of fineness of 800 (expressed in parts per thousand) that enable the finished product to meet all of the performance requirements of this standard and which shall be neither detrimental to health nor have any detrimental organoleptic effects.

#### 4.2 Metals

#### 4.2.1 Silver plating

Any parts of silver table cutlery may be plated with a fine silver coating.

# 4.2.2 Soldering

Precious metals in an article shall be soldered according to prEN 1904:1995.

# 4.2.3 Stainless Steels

Knife blades and any parts of the table cutlery, which have to fulfil special requirements e.g. carving items, shall be made of stainless steels according to Table 1.

Table 1 — Stainless steel for table cutlery, limiting requirements

Application	Name	number of materials	structure	
Carving items	X6CrMo 17-1	1.4113	ferritic	
Knife blades	X2OCr 13	1.4021	martensitic	
The chemical composition shall be in accordance with EN 10088-1; 1995				

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#### 4.3 **Non-metals**

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https://standards.iteh.ai/catalog/standards/sist/91fa9cd1-b715-470d-8ca5-Non-metal parts of table cutlery may be made of such materials as glass, ceramics, plastics or similar materials provided that the finished cutlery complies with the relevant performance requirements of 4. 1.

#### 5 Construction

#### 5.1 Alignment, uniformity and absence of defects

- 5.1.1 All surfaces shall be free from cracks, pits and other defects.
- All cutlery shall be essentially straight and symmetrical except when the lack of 5.1.2 straightness or symmetry is an intentional feature of the design.
- **5.1.3** Identical items within a batch shall, as far as is practicable, show no significant variation in dimension or form.
- **5.1.4** All edges, including the edges of spoons, forks, ladles and the insiders of fork prongs, shall be free from burrs and the roughness of blanked edges shall have been removed by a suitable operation.
- Table knives shall be balanced such that when the knife is pivoted on its bolster, or at the junction of the handle and blade if no bolster is present, the handle shall be heavier than the blade.

**5.1.6** Compliance with the requirements for 5.1.1 to 5.1.5 shall be checked by touch or by visual inspection

### 5.2 Hollow handles

The seams joining hollow handles together shall be watertight.

# 5.3 Knife edges

The cutting edge of sharpened table knives shall be either scalloped or serrated or shall be whetted to an included angle not greater than  $60^{\circ}$ .

The cutting edges of a carving knife blade shall be whetted to an included angle not greater than 40° and shall not be thicker than 0,46 mm when measured 1 mm from the edge.

# 6 Precious metal-plating

# 6.1 Hardness of hard gold coatings

Gold coatings claimed to be hard shall contain 0,2 % minimum Co or Ni or Fe or any other element which increases the hardness.

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# 6.2 Adhesion of precious metal coatings (standards.iteh.ai)

When tested in accordance with annex A coatings shall show no signs of flaking, blistering or peeling.

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Peeling.

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NOTE Alternative methods of determining the adhesion of coatings may be used provided the results obtained are in correlation with those given by ball burnishing.

# 6.3 Fineness of precious metal coatings

The fineness of precious metal coatings should not be less than 925 ‰.

# 7 Performance

# 7.1 Resistance to corrosion

The surfaces of stainless steel parts of table cutlery shall comply with the requirements a) to c) when tested in accordance with the method described in annex B:

- a) no transverse cracks shall have developed and no longitudinal cracks of a length exceeding 1,5 mm shall have developed;
- b) there shall not be more than three pits or zones of intergranular corrosion each having an area greater than a circle of 0,4 mm diameter on the handle, and not more than three pits each having an area greater than a circle of 0,4 mm diameter (0,126 mm<sup>2</sup>) elsewhere;
- c) there shall be no pits or zones of intergranular corrosion having an area greater than a circle of 0,75 mm (0,442 mm<sup>2</sup>) on any part.