# SLOVENSKI STANDARD
# SIST EN ISO 15730:2016

**01-julij-2016**

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**Kovinske in druge anorganske prevleke - Elektropoliranje kot sredstvo za glajenje in neaktivnost nerjavnega jekla (ISO 15730:2000)**

Metallic and other inorganic coatings - Electropolishing as a means of smoothing and passivating stainless steel (ISO 15730:2000)

Metallische und andere anorganische Überzüge - Elektropolieren als Mittel zum Glätten und Passivieren von rostfreiem Stahl (ISO 15730:2000)



Revêtements métalliques et autres revêtements inorganiques - Polissage électrolytique: procédé de brillantage (ou nivellement) et de passivation des aciers inoxydables (ISO 15730:2000)



**Ta slovenski standard je istoveten z:** **EN ISO 15730:2016**

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| 25.220.20 | Površinska obdelava | Surface treatment |
| 77.140.20 | Visokokakovostna jekla | Stainless steels |

**SIST EN ISO 15730:2016** **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

# EN ISO 15730

April 2016

ICS 25.220.20

English Version

# Metallic and other inorganic coatings - Electropolishing as a means of smoothing and passivating stainless steel (ISO 15730:2000)

Revêtements métalliques et autres revêtements inorganiques - Polissage électrolytique: procédé de brillantage (ou nivellement) et de passivation des aciers inoxydables (ISO 15730:2000)

Metallische und andere anorganische Überzüge - Elektropolieren als Mittel zum Glätten und Passivieren von rostfreiem Stahl (ISO 15730:2000)

This European Standard was approved by CEN on 2 April 2016.

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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 CEN-CENELEC Management Centre has the same status as the official versions.



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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

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## European foreword

The text of ISO 15730:2000 has been prepared by Technical Committee ISO/TC 107 “Metallic and other inorganic coatings” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 15730:2016 by Technical Committee CEN/TC 262 “Metallic and other inorganic coatings” the secretariat of which is held by BSI.

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 October 2016, and conflicting national standards shall be withdrawn at the latest by October 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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### Endorsement notice

The text of ISO 15730:2000 has been approved by CEN as EN ISO 15730:2016 without any modification.

INTERNATIONAL STANDARD

**ISO 15730**

First edition
2000-12-15

# Metallic and other inorganic coatings — Electropolishing as a means of smoothing and passivating stainless steel

*Revêtements métalliques et autres revêtements inorganiques — Polissage électrolytique: procédé de brillantage (ou nivellement) et de passivation des aciers inoxydables*



Reference number
ISO 15730:2000(E)

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## Annex

## 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 the member bodies casting a vote.

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International Standard ISO 15730 was prepared by Technical Committee ISO/TC 107, *Metallic and other inorganic coatings*, Subcommittee SC 8, *Chemical conversion coatings*.

Annex A of this International Standard is for information only.

## Introduction

Electropolishing removes a small but finite amount of metal from the surface that, in addition to smoothing and brightening, produces a hygienically clean surface desirable for use by manufacturers of food processing and medical equipment.

In addition to improved passivation, electropolishing provides many other benefits. Some examples are surface stress relief, removal of surface carbon and oxides and reduction of friction. Hydrogen embrittlement of articles is not produced during the electropolishing process, which takes minutes to perform.

The quality of passivation depends on the type of stainless steel, the formulation of the electropolishing solution and the conditions of operation. Free iron on the surface of the stainless steel is removed resulting in improved corrosion resistance. No further chemical treatment is necessary in order to passivate the stainless steel surface. Surface smoothing obtained by electropolishing also improves passivation.