



# SLOVENSKI STANDARD SIST EN ISO 15730:2023

01-julij-2023

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## Kovinske in druge anorganske prevleke - Elektropoliranje kot sredstvo za glajenje in pasiviranje nerjavnega jekla (ISO 15730:2023)

Metallic and other inorganic coatings - Electropolishing as a means of smoothing and passivating stainless steel (ISO 15730:2023)

Metallische und andere anorganische Überzüge - Elektropolieren als Mittel zum Glätten und Passivieren von nichtrostendem Stahl (ISO 15730:2023)

Revêtements métalliques et autres revêtements inorganiques - Polissage électrolytique comme procédé de lissage et de passivation des aciers inoxydables (ISO 15730:2023)

Ta slovenski standard je istoveten z: **EN ISO 15730:2023**

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### **ICS:**

25.220.20	Površinska obdelava	Surface treatment
77.140.20	Visokokakovostna jekla	Stainless steels

**SIST EN ISO 15730:2023**

**en,fr,de**



EUROPEAN STANDARD

EN ISO 15730

NORME EUROPÉENNE

EUROPÄISCHE NORM

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Supersedes EN ISO 15730:2016

English Version

## Metallic and other inorganic coatings - Electropolishing as a means of smoothing and passivating stainless steel (ISO 15730:2023)

Revêtements métalliques et autres revêtements inorganiques - Polissage électrolytique comme procédé de lissage et de passivation des aciers inoxydables (ISO 15730:2023)

Metallische und andere anorganische Überzüge - Elektropolieren als Mittel zum Glätten und Passivieren von nichtrostendem Stahl (ISO 15730:2023)

This European Standard was approved by CEN on 29 March 2023.

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COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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## European foreword

This document (EN ISO 15730:2023) has been prepared by Technical Committee ISO/TC 107 "Metallic and other inorganic coatings" in collaboration with Technical Committee CEN/TC 262 "Metallic and other inorganic coatings, including for corrosion protection and corrosion testing of metals and alloys" 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of an identical text or by endorsement, at the latest by November 2023, and conflicting national standards shall be withdrawn at the latest by November 2023.

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

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The text of ISO 15730:2023 has been approved by CEN as EN ISO 15730:2023 without any modification.



INTERNATIONAL  
STANDARD

ISO  
15730

Second edition  
2023-05

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

*Revêtements métalliques et autres revêtements inorganiques —  
Polissage électrolytique comme procédé de lissage et de passivation  
des aciers inoxydables*

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CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

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## ISO 15730:2023(E)

### 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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 107, *Metallic and other inorganic coatings*, Subcommittee SC 8, *Chemical conversion coatings*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 262, *Metallic and other inorganic coatings*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 15730:2000), of which it constitutes a minor revision.

The main changes are as follows:

- the normative references, and the terms and definitions have been updated;
- editorial errors have been corrected.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

## 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.

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