

01-julij-2022**Nadomešča:
SIST EN ISO 4531:2018**

Steklasti in porcelanski emajli - Sproščanje iz emajliranih delcev v stiku z živili - Metode preskušanja in mejne vrednosti (ISO 4531:2022)

Vitreous and porcelain enamels - Release from enamelled articles in contact with food - Methods of test and limits (ISO 4531:2022)

Emails - Freisetzung aus emaillierten Gegenständen für den Kontakt mit Lebensmitteln - Prüfverfahren und zulässige Grenzwerte (ISO 4531:2022)

Émaux vitrifiés - Libération depuis les articles émaillés en contact avec les aliments - Méthode d'essai et limites (ISO 4531:2022)

[SIST EN ISO 4531:2022](https://standards.iteh.ai/catalog/standards/sist/a7ea6b04-3f03-4164-9288-9f697054f079/sist-en-iso-4531-2022)**Ta slovenski standard je istoveten z: EN ISO 4531:2022****ICS:**

25.220.50	Emajlne prevleke	Enamels
67.250	Materiali in predmeti v stiku z živili	Materials and articles in contact with foodstuffs
97.040.60	Kuhinjska posoda, jedilni servisi in jedilni pribor	Cookware, cutlery and flatware

SIST EN ISO 4531:2022**en,fr,de**

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EUROPEAN STANDARD

EN ISO 4531

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2022

ICS 25.220.50; 67.250; 97.040.60

Supersedes EN ISO 4531:2018

English Version

Vitreous and porcelain enamels - Release from enamelled articles in contact with food - Methods of test and limits (ISO 4531:2022)

Émaux vitrifiés - Libération depuis les articles émaillés en contact avec les aliments - Méthode d'essai et limites (ISO 4531:2022)

Emails - Freisetzung aus emaillierten Gegenständen für den Kontakt mit Lebensmitteln - Prüfverfahren und zulässige Grenzwerte (ISO 4531:2022)

This European Standard was approved by CEN on 13 April 2022.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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 4531:2022) 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 2022, and conflicting national standards shall be withdrawn at the latest by November 2022.

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.

This document supersedes EN ISO 4531:2018.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

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

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Endorsement notice

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The text of ISO 4531:2022 has been approved by CEN as EN ISO 4531:2022 without any modification.

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INTERNATIONAL
STANDARD

ISO
4531

Second edition
2022-04

**Vitreous and porcelain enamels —
Release from enamelled articles in
contact with food — Methods of test
and limits**

*Émaux vitrifiés — Libération depuis les articles émaillés en contact
avec les aliments — Méthode d'essai et limites*

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ISO 4531:2022(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 documents 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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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.

This document was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 262, *Metallic and other inorganic coatings, including for corrosion protection and corrosion testing of metals and alloys*, in collaboration with ISO Technical Committee ISO/TC 107, *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 4531:2018), which has been technically revised.

The main changes are as follows:

- the release limit and explanatory information on release limit for aluminium has been updated;
- the Bibliography has been updated;
- the requirement to carry out testing on the same day has been added;
- the requirements of test reports have been updated.

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.

Introduction

The release of metal-ions from enamelled articles requires effective means of control to ensure protection against possible hazards arising from the use of improperly formulated, applied and fired enamels and/or inorganic decorations on food contact surfaces of enamelled articles used for the preparation, cooking, serving and storage of foodstuffs.

As a secondary consideration, different requirements from country to country for the control of the release of ions from the surfaces of enamelled articles present non-tariff barriers to international trade in these commodities. Accordingly, there is a need to establish internationally accepted methods of testing enamelled articles for the release of metal-ions.

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