

Vitreous and porcelain enamel finishes - Selection of test methods for vitreous and porcelain enamelled areas of articles (ISO 4528:2022)

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

|   |  |
|---|--|
| See Eesti standard EVS-EN ISO 4528:2022 sisaldab Euroopa standardi EN ISO 4528:2022 ingliskeelset teksti.           | This Estonian standard EVS-EN ISO 4528:2022 consists of the English text of the European standard EN ISO 4528:2022.                                  |
| Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas   | This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation. |
| Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 22.06.2022. | Date of Availability of the European standard is 22.06.2022.   |
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English Version

Vitreous and porcelain enamel finishes - Selection of test methods for vitreous and porcelain enamelled areas of articles (ISO 4528:2022)

Finitions en émail vitrifié - Le choix des méthodes d'essai applicables aux surfaces émaillées de pièces (ISO 4528:2022)

Emails und Emaillierungen - Auswahl von Prüfverfahren für emaillierte Flächen von Erzeugnissen (ISO 4528:2022)

This European Standard was approved by CEN on 12 June 2022.

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## European foreword

This document (EN ISO 4528:2022) 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of an identical text or by endorsement, at the latest by December 2022, and conflicting national standards shall be withdrawn at the latest by December 2022.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 4528:2015.

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.

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## Endorsement notice

The text of ISO 4528:2022 has been approved by CEN as EN ISO 4528:2022 without any modification.

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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.

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](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*, 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 third edition cancels and replaces the second edition (ISO 4258:2015), which has been technically revised.

The main changes are as follows:

- the title has been changed;
- the list of test methods and properties has 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](http://www.iso.org/members.html).

## Introduction

Standard test methods are required for measuring and controlling the properties and hence also the quality of vitreous and porcelain enamelled finishes.

To ensure that these finishes meet the requirements of various applications, test methods are chosen to measure the properties that are important to the function of a specific enamelled article.

# Vitreous and porcelain enamel finishes — Selection of test methods for vitreous and porcelain enamelled areas of articles

**WARNING** — The use of this document can involve hazardous materials, operations and equipment. It does not purport to address all of the safety or environmental problems associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to determine the applicability of any other restrictions.

## 1 Scope

This document gives guidance on the selection of test methods for evaluating the performance of vitreous and porcelain enamelled finishes in different applications. This document references the test methods available for measuring the properties of these finishes and correlates these properties to the requirements of specific enamelled articles.

This document is limited for the most part to test methods in ISO documents or European standards but does not provide acceptance criteria or performance limits for the properties.

This document is applicable to all enamelled articles, irrespective of their basis metals.

## 2 Normative references

There are no normative references in this document.

## 3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

## 4 Selection of test methods

The properties of enamelled surfaces are listed in [Table 1](#), along with the numbers of the ISO test methods by which they may be measured. The table identifies the tests that should be performed to assess the performance of 30 specific enamelled articles. Suitable standard test methods are selected by noting the specific tests recommended in the column for each of the enamelled articles.