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Vitreous and porcelain enamels - Preparation of samples and determination of thermal expansion coefficient (ISO 20274:2017)

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/18

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Podľa zákona č. 264/1999 Z. z. o technických požiadavkách na výrobky a o posudzovaní zhody a o zmene a doplnení niektorých zákonov v znení neskorších predpisov sa slovenská technická norma a časti slovenskej technickej normy môžu rozmnožovať alebo rozširovať len so súhlasom slovenského národného normalizačného orgánu.

EUROPEAN STANDARD

**EN ISO 20274**

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2017

ICS 25.220.50

English Version

**Vitreous and porcelain enamels - Preparation of samples  
and determination of thermal expansion coefficient (ISO  
20274:2017)**

Emaux vitrifiés - Préparation d'échantillons d'émail et  
détermination du coefficient de dilatation thermique  
(ISO 20274:2017)

Emails und Emailierungen - Herstellung von Proben  
und Bestimmung des thermischen  
Ausdehnungskoeffizienten (ISO 20274:2017)

This European Standard was approved by CEN on 22 June 2017.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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## European foreword

This document (EN ISO 20274:2017) 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of an identical text or by endorsement, at the latest by February 2018, and conflicting national standards shall be withdrawn at the latest by February 2018.

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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### Endorsement notice

The text of ISO 20274:2017 has been approved by CEN as EN ISO 20274:2017 without any modification.

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**Vitreous and porcelain enamels —  
Preparation of samples and  
determination of thermal expansion  
coefficient**

*Emaux vitrifiés — Préparation d'échantillons d'émail et  
détermination du coefficient de dilatation thermique*





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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 on 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 the following URL: [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*.

## Introduction

The thermal expansion coefficient of enamel and the relevant substrate is an important material characteristic, as it provides information on the stress ratios in the composite material.



# Vitreous and porcelain enamels — Preparation of samples and determination of thermal expansion coefficient

## 1 Scope

This document specifies the procedures for the preparation of enamel samples for measurement of the thermal length change and calculation of the thermal expansion coefficient.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 7991, *Glass — Determination of coefficient of mean linear thermal expansion*

ISO 19496-1, *Vitreous and porcelain enamels — Terminology — Part 1: Terms and definitions*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**