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

*Finitions en émail vitrifié — Choix des méthodes d'essai applicables
aux surfaces émaillées de pièces*





COPYRIGHT PROTECTED DOCUMENT

© ISO 2022

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents		Page
Foreword		iv
Introduction		v
1 Scope		1
2 Normative references		1
3 Terms and definitions		1
4 Selection of test methods		1
Bibliography		11

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 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.

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.