

BUREAU OF INDIAN STANDARDS

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Draft Indian Standard

**VITREOUS AND PORCELAIN ENAMELLED MANUFACTURED ARTICLES —
DETERMINATION OF RESISTANCE TO HEAT**

[*Second Revision of IS 3972 (Part 2/ Sec 8)*]

(ICS 25.220.50)

Ceramicware Sectional Committee, CHD 09

Last Date for Comments: 30 August 2023

Ceramicware Sectional Committee, CHD 09

NATIONAL FOREWORD

(Formal clauses shall be added later)

This standard was first published in 1968. The committee, while reviewing IS 3972: 1968 decided to publish this standard in two parts. Part 1 dealing with production of specimens for testing in two sections, namely, Section 1 Enamelled sheet steel, and Section 2 Enamelled cast iron. Part 2 will deal with various test methods applicable to vitreous enamelled sheet steel and vitreous enamelled cast iron. The committee had also decided that Part 2 shall have various sections and each section will deal with a particular test method.

This standard (Part 2/Sec 8) prescribes the basic conditions concerning the method for determining the resistance of vitreous and porcelain enamelled articles to heat. The other sections of Part 2 are as follows:

Section 2 Low and high voltage test for detection and locating defects

Section 3 Resistance to boiling acids, boiling liquids, alkaline liquids and their vapours

Section 4 Resistance to thermal shock

Section 5 Resistance to hot alkali (sodium hydroxide)

Section 6 Reflectance and specular gloss

Section 9 Resistance to dilute sulphuric acid at room temperature

Section 10 Resistance to hot detergent solution used for washing textiles

Section 11 Resistance to abrasion

Section 12 Resistance to torsion

Section 13 Resistance to warpage

Section 1, Section 3 and Section 7 of this standard IS 3972 (Part 2) have been merged and published as IS 3972 (Part 2/ Sec 3).

Now, this revision has been taken up in order to align it with latest version of ISO 4530 2022. The title of the standard has also been align with ISO 4530 2022.

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions and terminologies are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.
- b) Comma (,) has been used as a decimal marker in the International Standard, while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, the reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their respective places, are listed below along with their degree of equivalence for the editions indicated:

<i>International Standards/ documents</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 19496-1 Vitreous and porcelain enamels — Terminology — Part 1: Terms and definitions	IS 2717 : 1979 Glossary of terms relating to vitreous enamelware and ceramic - Metal systems (First Revision)	Indigenous

In this adopted standard, reference appears to certain International Standards/documents where the standard atmospheric conditions to be observed are stipulated which are not applicable to tropical/subtropical countries. The applicable standard atmospheric conditions for Indian conditions are $(27 \pm 2)^{\circ}\text{C}$ and (65 ± 5) percent relative humidity and shall be observed while using this standard.

In reporting the result of a test or analysis made in accordance with this standard, if the final value, observed or calculated, is to be rounded off, it shall be done in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'.