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BSI Standards Publication

Dentistry — Ceramic materials

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This British Standard is the UK implementation of EN ISO 6872:2024. It is identical to ISO 6872:2024. It supersedes BS EN ISO 6872:2015+A1:2018, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee CH/106/2, Prosthodontic materials.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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This European Standard was approved by CEN on 2 August 2024.

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European foreword

This document (EN ISO 6872:2024) has been prepared by Technical Committee ISO/TC 106 "Dentistry" in collaboration with Technical Committee CEN/TC 55 "Dentistry" the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by February 2025, and conflicting national standards shall be withdrawn at the latest by February 2025.

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This document supersedes EN ISO 6872:2015, EN ISO 6872:2015/A1:2018.

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Endorsement notice

The text of ISO 6872:2024 has been approved by CEN as EN ISO 6872:2024 without any modification.

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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 document 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).

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This document was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 2, *Prosthetic materials*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 55, *Dentistry*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fifth edition cancels and replaces the fourth edition (ISO 6872:2015), which has been technically revised. It also incorporates the Amendment ISO 6872:2015/Amd 1:2018.

The main changes are as follows:

- [Annex C](#) on protocol to assess the hydrothermal stability of yttria-stabilized tetragonal zirconia (Y-TZP) has been added.

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.

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Specific qualitative and quantitative requirements for freedom from biological hazard are not included in this document, but it is recommended that in assessing possible biological or toxicological hazards, reference be made to ISO 10993-1 and ISO 7405.

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Dentistry — Ceramic materials

1 Scope

This document specifies the requirements, recommendations and the corresponding test methods for dental ceramic materials for fixed all-ceramic and metal-ceramic restorations and prostheses.

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 1942, *Dentistry — Vocabulary*

ISO 3696, *Water for analytical laboratory use — Specification and test methods*

ISO 13078, *Dentistry — Dental furnace — Test method for temperature measurement with separate thermocouple*

ISO 13078-2, *Dentistry — Dental furnace — Part 2: Test method for evaluation of furnace programme via firing glaze*

ISO 13078-3, *Dentistry — Dental furnace — Part 3: Test method for the evaluation of high temperature sintering furnace measurement with a separate thermocouple*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 1942 and the following apply.

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/>

3.1 Material

3.1.1

chromatic dentine ceramic

dentine ceramic having a high strength or saturation of the hue (colour)

3.1.2

dental ceramic

ceramic material prepared for use in the fabrication of dental prostheses and restorations

3.1.3

dentine ceramic

slightly translucent, pigmented *dental ceramic* (3.1.2) used to simulate the natural appearance of dentine in a dental ceramic restoration or dental prosthesis