

BUREAU OF INDIAN STANDARDS

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भारतीय मानक मसौदा
दंत चिकित्सा — स्थिर और हटाने योग्य पुनर्स्थापना और उपकरणों के
लिए धातु सामग्री

Draft Indian Standard

**Dentistry — Metallic Materials for Fixed and Removable
Restorations and Appliances**

ICS 11.060.10

Dentistry Sectional Committee, MHD 08

Last date for comments: 05 April 2024

NATIONAL FOREWORD

(Adoption clause will be added later)

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

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

In this adopted standard, 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 Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 1942, Dentistry — Vocabulary	IS 17895 : 2023/ ISO 1942:2020, Dentistry Vocabulary	Identical
ISO 3696, Water for analytical laboratory use — Specification and test methods	IS 1070 : 2023, Reagent grade water - Specification (<i>Fourth Revision</i>)	Modified

ISO 5832-2, Implants for surgery — Metallic materials — Part 2: Unalloyed titanium	IS/ISO 5832-2 : 2018, Implants for surgery – Metallic materials: Part 2 Unalloyed titanium (<i>First Revision</i>)	Identical
ISO 5832-3, Implants for surgery — Metallic materials — Part 3: Wrought titanium 6-aluminium 4-vanadium alloy	IS 18261 (Part 3) : 2023/ ISO 5832-3 : 2021, Implants for Surgery Metallic Materials Part 3 Wrought Titanium 6-Aluminium 4-Vanadium Alloy (<i>Second Revision</i>)	Identical
ISO 6892-1, Metallic materials — Tensile testing — Part 1: Method of test at room temperature	IS 1608 (Part 1) : 2022/ISO 6892-1 : 2019, Metallic materials - Tensile testing - Part 1 : Method of test at room temperature	Identical
ISO 7500-1, Metallic materials — Calibration and verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Calibration and verification of the force-measuring system	IS 1828 (Part 1) : 2022/ISO 7500-1 : 2018, Metallic materials - calibration and verification of static uniaxial testing machines - part 1: tension/compression testing machines - calibration and verification of the force-measuring system	Identical
ISO 9513, Metallic materials — Calibration of extensometer systems used in uniaxial testing	IS 12872 : 2021/ISO 9513 : 2012, Metallic Materials - Calibration of Extensometer Systems Used in Uniaxial Testing (<i>Second Revision</i>)	Identical
ISO 15223-1:2021, Medical devices — Symbols to be used with information to be supplied by the manufacturer — Part 1: General requirements	IS 18105 (Part 1) : 2023/ISO 15223-1:2021, Medical devices Symbols to be used with information to be supplied by the manufacturer Part 1: General requirements	Identical

The technical committee has reviewed the provisions of the following International Standards referred in this adopted standard and has decided that they are acceptable for use in conjunction with this standard:

<i>International Standard</i>	<i>Title</i>
ISO 6344-3	Coated abrasives — Determination and designation of grain size distribution — Part 3: Microgrit sizes P240 to P5000
ISO 9693	Dentistry — Compatibility testing for metal-ceramic and ceramic-ceramic systems
ISO 10271:2020	Dentistry — Corrosion test methods for metallic materials

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test shall be rounded off in accordance with IS 2: 2022 'Rules for rounding off numerical values (*second revision*)'.

This standard also makes a reference to the BIS Certification Marking of the product. Details of which is given in National Annex A.

NATIONAL ANNEX A
(National Foreword)

A-1 BIS CERTIFICATION MARKING

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the product(s) may be marked with the Standard Mark.

Scope

This document specifies requirements and test methods for metallic materials that are suitable for the fabrication of dental restorations and appliances. Included are metallic materials recommended for use either with or without a ceramic veneer, or recommended for both uses. Furthermore, this document specifies requirements for packaging and marking of the products and for the instructions for use of these materials, including products delivered for sale to a third party.

This document does not apply to alloys for dental amalgam (see [ISO 24234](#)), dental brazing materials (see ISO 9333), or metallic materials for orthodontic appliances (e.g. wires, brackets, bands and screws).

This document is not applicable to magnetic attachment, which are specified in [ISO 13017](#).

The technical content of the document has not been enclosed as it is identical with the corresponding ISO standard. For details, please refer to ISO 22674:2022 or kindly contact:

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