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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 17168-2013

Replacing GB/T 17168-2008

**Dentistry -- Metallic materials for fixed and removable
restorations and appliances**

牙科学 固定和活动修复用金属材料

(English Translation)

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Administration of the People's Republic of China**

Table of Contents

1 Scope	1
2 Normative references	1

Foreword

All the technical contents of this standard is mandatory.

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard replaces GB/T 17168-2008 "precious metal dental casting alloy",
YY0626-2008 "precious metal content of 25% to 75%

Dental casting alloys "and YY0620-2008" Dentistry Gold Alloy. "

This standard uses the translation method identical with ISO 22674-2006 "Dentistry fixed
and repairing metal material."

Correspondence between the consistency of the standards of international documents and
normative references of the following documents.

RT Test Method. --- GB/T 228.1-2010 metallic materials - Part 1 Tensile test (ISO
6892-1.2009, MOD)

--- GB/T 6682-2008 analytical laboratory use specifications and test methods (ISO 3696.
1987, MOD)

--- GB/T 9937 (all parts) oral vocabulary [ISO 1942 (all parts)]

--- YY0621-2008 Dental PFM system (ISO 9693.1999, MOD)

Please note that some of the content of this document may involve patents. Release
mechanism of the present document does not assume responsibility for the identification of
these patents.

This standard was proposed by the State Food and Drug Administration.

This standard by the National Standardization Technical Committee materials and oral
appliances and equipment (SAC/TC99) centralized.

This standard was drafted. Peking University School of Stomatology Medical Device Quality
Supervision and Inspection Center, there is limited research billion of new materials shares

The company, your research Platinum Limited.

Introduction

This standard does not include the possible biological hazards qualitative and quantitative requirements, but it is recommended in the evaluation of possible biological hazards, the see

ISO 10993-1 and ISO 7405.

This standard performance requirements for metal and alloys PFM system in the metal portion of the substitution of the original contained in

The ISO 9693 requirements. Combined with the performance requirements of ceramic and metal PFM system between still see ISO 9693.

The standard of proof stress and the minimum of the Elongation 0 metal material not specified, but it is recommended in the detection of these properties

Using the test procedure specified in Appendix A. When the ISO /TC106SC2 relevant information, these requirements will be listed in the present standard of repair

The revised edition.

Dentistry fixed and repairing metal material

1 Scope

This standard is used for the production of dental prostheses and prosthetic devices metal materials, including used for porcelain or ceramic, or the two can

Metallic materials are classified and specifies performance requirements. In addition, the standard specifies the requirements for packaging and labeling of products, as well as providing material

Specification requirements.

This standard does not apply to dental amalgam (ISO 24234), dental welding materials (ISO 9333), or orthodontic metallic material

(ISO 15841) (such as orthodontic wire, brackets, runners and screws, etc.).

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein

Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 12160-2002 uniaxial extensometer calibration test (ISO 9513.1999, IDT)

Testing - Part 1 GB/T 16825.1-2008 static uniaxial testing machine. Rally and (or) pressure testing machine force measuring system

Verification and calibration (ISO 7500-1:2004, IDT)

YY0466-2003 medical equipment used with medical device labels, signs and symbols provide information (ISO 15223:2000, IDT)

YY/T 0528-2009 Dental metallic materials corrosion test methods (ISO 10271:2001, IDT)

ISO 1942 (all parts) oral vocabulary (Dentistry-Vocabulary)

ISO 3696: 1987 for analytical laboratory use specifications and test methods (Water for analytical laboratory use - Specification and test methods)

ISO 6892 metallic materials at room temperature tensile test method (Metallic materials - Tensile testing at ambient temperature)

ISO 9693 Dental PFM system (Metal-ceramic dental restorative systems)

3 Terms and Definitions

As defined in ISO 1942 and the following terms and definitions apply to this document.

3.1

Base metal basemetal

All metal elements except precious metals and silver.

3.2

Harmful elements hazardous element

Known side effects may have biological elements.

NOTE: dental alloys containing such elements (such as alloying additives or impurities) does not mean that the alloy itself is harmful.

3.3

Metallic material metallic material

A material alloys, precious metal or precious metal properties.

Note: The metal material may be a pure metal or alloy.

3.4

Cast alloy casting alloy

Used for casting metal material in the dental mold.

3.5

Ceramic finishes ceramic veneer

Repair thin metal ceramic surface on the body for improving appearance.

3.6

Metal - ceramic metal-ceramic

By sintering a ceramic base material facing the metal dental prosthesis together.

Note 1: This term also applies to the description of such a metal material used for restoration. In this document, the metal - ceramic alloys are synonyms.

Note 2: If the manufacturer has recommended that such materials may not be used for metal porcelain.

3.7

Metal Matrix metallic base

Alloy highest concentration of precious metals or non-precious metals.

NOTE: If applicable, the name of the element should be placed in front of the following word "group" word, such as "dental prosthesis with xxx metal material" or "dental xxx

Base cast alloy "or" dental xxx metal - ceramic materials. "

3.8

Non-precious metal alloy base-metal alloy

Non-precious metal alloy as a main component.

3.9

Cast as-cast condition

Taken out from the casting metal material in the metallurgical state of its solid phase.

Note: This state depends on the manufacturer's recommended cooling procedure (such as air cooled).

3.10

Air cooling bench-cooling

Casting remains in the investment material, the top metal is exposed at room temperature for decentralized on a flat surface of the insulating platform, free flow of air around it straight

To the casting down to room temperature.