

**SS 581 : 2020**  
(ICS 39.060)

**SINGAPORE STANDARD**

# **Specification for fineness and marking of articles of precious metals**



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CSC set up the Technical Committee on Precious Metals Jewellery to prepare this standard. The Technical Committee consists of the following members:

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## Foreword

This Singapore Standard was prepared by the Technical Committee on the Fineness of Precious Metals Jewellery, under the purview of CSC.

The objective of the Singapore Standard is to safeguard and uphold the industry integrity and standard pertaining to the fineness of gold and other precious metals. It serves as an important document where industry practitioners and consumers can rely upon so as to instil added confidence in Singapore being a hub for quality precious metal/jewellery trading.

To stay competitive in the ever-changing local and overseas markets, it is imperative for the industry to raise the standard on product quality and authenticity and to align with the best practices in established international markets.

Establishment of this Singapore Standard was initiated by Singapore Jewellers Association.

The key changes in this revision include the following:

- Added Table 1 – Fineness of precious metal alloys;
- Updated the clause on use of solder;
- Added an informative Annex A on nickel allergy to alert users who may be susceptible to allergy from contact nickel-containing and nickel-coated jewellery.

In preparing this standard, references were made to the following publications:

1. Convention on the control and marking of articles of precious metals PMC/W/2/2001 (Rev. 9), 1 June 2014, Decisions on Technical Matters Related to Annexes I and II of the Convention on the Control and Marking of Articles of Precious Metals
2. Convention on the control and marking of articles of precious metals PMC/W 2/2000 (Rev. 2), 11 October 2010 – Annexes I and II to the Convention on the Control and Marking of Articles of Precious Metals.

Annex A was adapted with the kind permission of The National Skin Centre Singapore.

Acknowledgement is made for the use of information from the above publications.

This standard is expected to be used by jewellery manufacturers, jewellery retailers, educational institutions and laboratories engaged in jewellery testing.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

### NOTE

1. *Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions. Where SSs are deemed to be stable, i.e. no foreseeable changes in them, they will be classified as "Mature Standards". Mature Standards will not be subject to further review, unless there are requests to review such standards.*
2. *An SS or TR is voluntary in nature except when it is made mandatory by a regulatory authority. It can also be cited in contracts making its application a business necessity. Users are advised to assess and determine whether the SS or TR is suitable for their intended use or purpose. If required, they should refer to the relevant professionals or experts for advice on the use of the document. Enterprise Singapore and the Singapore Standards Council shall not be liable for any damages whether directly or indirectly suffered by anyone or any organisation as a result of the use of any SS or TR. Although care has been taken to draft this standard, users are also advised to ensure that they apply the information after due diligence.*
3. *Compliance with a SS or TR does not exempt users from any legal obligations.*

# Specification for fineness and marking of articles of precious metals

## 1 Scope

This standard deals with the system for the description and marking of articles of precious metals. It specifies the fineness and expression of gold and other precious metal jewellery. It includes sampling plans, assay methods and hallmarking.

This standard does not cover articles which are intended to be used for medical, dental, veterinary, scientific and industrial purposes. Further, this standard does not apply to articles made of alloys of a fineness less than 850 ‰ for platinum, 375 ‰ for gold, 500 ‰ for palladium and 800 ‰ for silver.

## 2 Normative references

The following referenced documents are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 11210	Determination of platinum in platinum jewellery alloys – Gravimetric method after precipitation of diammonium hexachloroplatinate
ISO 11426	Jewellery -- Determination of gold in gold jewellery alloys -- Cupellation method (fire assay)
ISO 11427	Determination of silver in silver jewellery alloys – Volumetric (potentiometric) method using potassium bromide
ISO 11490	Determination of palladium in palladium jewellery alloys – Gravimetric determination with dimethylglyoxime
ISO 11494	Jewellery – Determination of platinum in platinum jewellery alloys – Inductively coupled plasma (ICP) solution-spectrometric method using yttrium as internal standard element
ISO 11495	Jewellery – Determination of palladium in palladium jewellery alloys – Inductively coupled plasma (ICP) solution-spectrometric method using yttrium as internal standard element
ISO 13756	Determination of silver in silver jewellery alloys – Volumetric (potentiometric) method using sodium chloride or potassium chloride
ISO 15093	Jewellery -- Determination of precious metals in 999 0/00 gold, platinum and palladium jewellery alloys -- Difference method using ICP-OES
ISO 15096	Jewellery -- Determination of silver in 999 0/00 silver jewellery alloys -- Difference method using ICP-OES