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IS 15329: 2003

# भारतीय मानक

# प्लेटिनम एवं प्लेटिनम मिश्रधातुएँ, आभूषण/शिल्पकारी — शुद्धता एवं मुहरांकन — विशिष्टि

Indian Standard

# PLATINUM AND PLATINUM ALLOYS, JEWELLERY/ ARTEFACTS — FINENESS AND MARKING — SPECIFICATION

ICS 39.060

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BUREAU OF INDIAN STANDARDS MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG NEW DELHI 110002

### **FOREWORD**

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Precious Metals Sectional Committee had been approved by the Metallurgical Engineering Division Council.

In many countries, the platinum jewellery/artefacts traded are certified for purity and are marked with various details like purity/fineness of the article, manufacturer's mark, the mark of the assaying laboratory responsible for certifying the purity, etc. These jewellery/artefacts are termed as Hallmarked.

The need for availability of jewellery/artefacts of platinum of certified purity in the country is the major reason for undertaking the preparation of this standard.

This standard is primarily meant to classify the various grades of platinum according to their platinum content and to provide guideline to mark the platinum jewellery/artefacts.

On the subject also exist an International Standard ISO 9202: 1991 'Jewellery — Fineness of precious metal alloys' specifying the fineness of alloy of various precious metals like, gold, platinum, palladium and silver. Last three grades 950, 900 and 850 of platinum in this standard has been taken from ISO 9202 keeping in mind the requirement of international trade. This standard also specifies additional grades of platinum used in India.

The composition of the Committee responsible for the formulation of this standard is given in Annex A.

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 or analysis, shall be rounded off in accordance with IS 2:1960 'Rules for rounding off numerical values (revised)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

# Indian Standard

# PLATINUM AND PLATINUM ALLOYS, JEWELLERY/ ARTEFACTS — FINENESS AND MARKING — SPECIFICATION

# 1 SCOPE

- 1.1 This standard specifies two grades of fine platinum and three grades of platinum alloys used in the manufacture of jewellery/artefacts of platinum based on their platinum content.
- 1.2 This standard also specifies the guidelines for marking of purity and other details on tested platinum jewellery/artefacts.

# 2 REFERENCES

The following standards contain provisions which through reference in this text, constitute provision of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreement based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

IS No.	Title	
1387 : 1993	General requirements for the supply	
	of metallurgical materials (second revision)	
2270 : 1965	Method for assaying of platinum and platinum alloys	

# **3 TERMINOLOGY**

For the purpose of this standard, the following definitions shall apply.

- 3.1 Assaying The method of accurate determination of platinum content of the sample expressed in parts per thousand (‰).
- 3.2 Fineness The ratio between the mass of platinum content and total mass expressed in parts per thousand (‰).
- 3.3 Platinum The metallic element platinum, free from any other element.
- **3.4 Platinum Alloys** Platinum alloyed with one or more other elements.

# 4 SUPPLY OF MATERIAL

General requirements relating to the supply of material are laid down in IS 1387.

## **5 GRADES**

Fine platinum and platinum alloys shall be classified in accordance with the following grades depending upon their fineness:

Grade 9995 } 999 } Fine platinum		Fineness, Min 999.5 999.0
950 900 }	Platinum alloys for jewellery/	950 900
850	artefacts	850

NOTE — The above classification of platinum alloy is applicable for platinum jewellery/artefacts also.

## **6 REQUIREMENTS**

6.1 Platinum alloy used for the manufacture of jewellery/artefacts shall have the fineness as given in 5 without any negative tolerance.

# **6.1.1** *Solder*

Solder used for the manufacture of jewellery/artefacts shall contain at least 995 parts per thousand of gold, silver, platinum or palladium and silver content shall not exceed 20 parts per thousand. However, it will be preferable to utilize laser technology for joining jewellery parts.

# 6.2 Sampling

Unless otherwise specified for the jewellery/artefact of the same design and quality, the sample shall be taken from 10 percent of the jewellery/artefacts selected at random. In all other cases, the sample shall be taken from each jewellery/artefacts. Any other sampling plan may also be followed subject to the agreement between the contracting parties or as specified by the inspection agency as the case may be.

# 6.3 Assaying

The sample taken as prescribed in 6.2 shall be assayed in accordance with IS 2270. The actual mass of sample, etc shall, however, be as prescribed in respective test methods as detailed in 2270.

NOTE — Revision of IS 2270 is under preparation.

### 6.4 Tolerances

No negative tolerance shall be allowed on the fineness of platinum jewellery/artefact sampled and tested as per 6.2 and 6.3 respectively.

### 7 MARKING

- 7.1 The platinum and platinum alloy, jewellery/ artefacts shall be stamped with the Standard Mark in this case known as the 'HALLMARK' by BIS recognized Assaying and Hallmarking Centre only. The mark shall comprise of the following:
  - a) BIS logo;
  - b) Purity grade/fineness;
  - c) Assay centre's logo/symbol;
  - d) Year of marking denoted by a letter symbol (as defined by BIS); and
  - e) Jeweller's mark/manufacturer's identification mark.

# 7.2 Hallmarking

The use of Hallmark is governed by the provisions of the Bureau of Indian Standards Act, 1986 and Rules and Regulations made thereunder. The details of conditions under which the licence for the use of the Hallmark may be granted to jewellers or jewellery/

artefacts manufacturers may be obtained from the Bureau of Indian Standards.

NOTE — Jewellers/Sponsors logo on each article shall be marked before offering the lot to BIS reconized assaying and Hallmarking Centre for Hallmarking.

- 7.2.1 Only linear designs shall be permitted.
- **7.2.2** Markings shall be legible and durable. Marking shall be visible by a magnifying glass of magnification 10 X.
- **7.2.3** Markings shall be done on all those parts which can be easily removed or replaced.
- **7.3** Platinum jewellery/artefacts on which marking should not be applied are as follows:
  - Any platinum jewellery/artefact which has not been assayed by BIS recognized Assaying and Hallmarking Centre.
  - b) Any platinum jewellery/artefact which fails to comply with specified fineness.
  - c) Any platinum jewellery/artefact which is not solid or which is made with hollow centre and then filled with base metal, cement, lac or other substance thereby giving the article a false or added weight or strength.
  - d) Platinum jewellery/artefact on which it is physically not possible to stamp the mark.

# ANNEX A

(Foreword)

# **COMMITTEE COMPOSITION**

# Precious Metals Sectional Committee, MTD 10

Organization

In personal capacity (Sopan Bang, Co-operative Housing Society, Flat No. 9, Building No. A-1-A, Pashan, Panchabati Pune 411008)

All India Handicrafts Board, New Delhi

All India Sarafa Association, Delhi Bhabha Atomic Research Centre, Mumbai

Consumer Guidance Society of India, Mumbai

Consumer Education and Research Centre, Ahmedabad

Gujarat Gold Centre, Ahmedabad

Gujarat Bullion Refinery Ltd, Ahmedabad

Hindustan Platinum Pvt Ltd, Mumbai

Hutti Gold Mines Co Ltd, Karnataka

Jetha Bhai Jhaveri, New Delhi Medical Education Research (Dental), Mumbai MMTC Ltd, New Delhi

National Refinery Pvt Ltd, Mumbai

National Test House, Kolkata

Surabhi, Hyderabad

Tamilnadu Jeweller's Federation, Chennai

The Bombay Bullion Association Ltd, Mumbai

The Gem and Jewellery Export Promotion Council, Mumbai

Titan Industries Ltd, Tamil Nadu World Gold Council, New Delhi BIS Directorate General Representive(s)

SHRI S. C. SAHA (Chairman)

SHRI S. K. MOHAPATRA

SHRI R. P. CHUGH (Alternate)

SHRI PREM NATH KHANNA

Dr T. P. RADHAKRISHNAN

DR R. G. DHNANESHWAR (Alternate)

SHRI N. G. WAGLE

DR A. R. CHENOY (Alternate)

DR C. J. SHISHOO

SHRI SURESH C. KANSARA

SHRI ANIL C. KANSARA (Alternate)

SHRI J. N. KANSARA

SHRI V. J. KANSARA (Alternate)

SHRI CHANDRAKANT S. CHOKSI

SHRI SHASHIKANT S. CHOKSI (Alternate)

SHRI J. S. GURURAJA NAIK
DR M. L. PATIL (Alternate)

SHRI VIMAL JETHA

DR V. M. DESAI

SHRI D. K. MANCHANDA

SHRI SANJAY ANAND (Alternate)

SHRI CHANDRAKANT K. SHAH

SHRI S. P. SONAWALAQA (Alternate)

Shri A. Biswas

Shrimati Shashi Sharma (Alternate)

SHRI S. SYAMSUNDER

Dr Vasantial C. Mehta

SHRI R. CHANDRASEKARAN (Alternate)

SHRI AMRITLAL G. SONAWALA

SHRI SHANTILAL NARANDAS (Alternate)

SHRI NAND KISHORE M. CHHABRIA SHRI DILIP SHAH (*Alternate*)

SHRI M. KUMAR

SHRI G. P. PILLAI .

SHRI JAGMOHAN SINGH, Director & Head (MTD) [Representing Director General (Ex-officio)]

Member Secretary
Shri B. K. Mukhopadhyay
Joint Director (MTD), BIS

# **Bureau of Indian Standards**

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Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards: Monthly Additions'.

This Indian Standard has been developed from Doc: No MTD 10 (4431).

# **Amendments Issued Since Publication**

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