

Methods of test for

Electroplated gold and gold alloy coatings —

Part 1: Determination of coating thickness

[ISO title: Metallic coatings — Test methods for electrodeposited
gold and gold alloy coatings — Part 1: Determination of coating
thickness]

UDC 669.21.058:620.1

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Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Surface Coatings (other than Paints) Standards Committee (SRC/-) to Technical Committee SRC/5, upon which the following bodies were represented:

- Assay Offices Committee of Great Britain
- British Jewellers' Association
- British Metal Finishing Suppliers' Association
- British Telecommunications plc
- Cutlery and Silverware Association
- Design and Research Centre for the Gold, Silver and Jewellery Industries
- Electronic Engineering Association
- Institute of Metal Finishing
- Institution of Corrosion Science and Technology
- Metal Finishing Assn.
- Ministry of Defence
- National Association of Goldsmiths of Great Britain and Ireland

This British Standard, having been prepared under the direction of the Surface Coatings (other than Paints) Standards Committee, was published under the authority of the Board of BSI and comes into effect on 30 May 1986

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The following BSI references relate to the work on this standard:
Committee reference SRC/5
Draft for comment 81/50885 DC

ISBN 0 580 15117 4

Amendments issued since publication

Amd. No.	Date of issue	Comments

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National foreword

This Part of BS 6670 has been prepared under the direction of the Surface Coatings (other than Paints) Standards Committee. It is identical with ISO 4524-1:1985 “*Metallic coatings — Test methods for electrodeposited gold and gold alloy coatings — Part 1: Determination of coating thickness*” prepared by Sub-committee 3, Electrodeposited coatings and related finishes of Technical Committee 107, Metallic and other non-organic coatings, of the International Organization for Standardization (ISO) with the active participation and approval of the UK.

A number of the Parts of BS 6670 are intended to replace certain of the appendices of BS 4292:1968, “*Electroplated coatings of gold and gold alloy*”. Now that the test methods required for this purpose have been published, BS 4292:1968 is being revised. Upon completion of the revision it will no longer contain the texts of test methods and BS 4292:1968 will be withdrawn.

At present, the following Parts of BS 6670 have been published.

- *Part 1: Determination of coating thickness;*
- *Part 2: Environmental tests;*
- *Part 3: Electrographic tests for porosity;*
- *Part 4: Determination of gold content;*
- *Part 5: Adhesion tests.*

Further Parts of this standard will be prepared, if required.

Terminology and conventions. The text of the International Standard has been approved as suitable for publication as a British Standard without deviation. Some terminology and certain conventions are not identical with those used in British Standards; attention is drawn especially to the following.

The comma has been used as a decimal marker. In British Standards it is current practice to use a full point on the baseline as the decimal marker.

In British Standards it is current practice to use the symbol “L” for litre rather than “l”.

Wherever the words “this part of ISO 4524” appear, referring to this standard, they should be read as “this Part of BS 6670”.

Cross-references

International Standards	Corresponding British Standards
ISO 1463:1982	BS 5411 <i>Methods of test for metallic and related coatings</i> Part 5:1984 <i>Measurement of local thickness of metal and oxide coatings by the microscopical examination of cross sections</i> (Identical)
ISO 2177:1985	Part 4:1985 <i>Coulometric method for the measurement of coating thickness</i> (Identical)
ISO 3497:1976	Part 8:1976 <i>Measurement of coating thickness of metallic coatings: X-ray spectrometric methods</i> (Identical)
ISO 3543:1981	Part 12:1981 <i>Beta backscatter method for measurement of thickness</i> (Identical)
ISO 4518:1980	Part 7:1981 <i>Profilometric method for measurement of coating thickness</i> (Identical)

International Standards	Corresponding British Standards
ISO 4524-4:1985	BS 6670 <i>Methods of test for gold and gold alloy coatings</i> Part 4:1985 <i>Determination of gold content</i> (Identical)

The Technical Committee has reviewed the provisions of ISO 3868 to which reference is made in clause 10 and has decided that they are acceptable for use in conjunction with this standard.

Additional information. In Table 3 the phrase in the heading of column 3, namely, “Cell size” refers to the optical path length of the cell.

This Part describes methods of test only and should not be used or quoted as a specification. Reference to this Part should state that the method of test used is in accordance with BS 6670-1.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 6, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.