

Metallic and oxide coatings — Measurement of coating thickness — Microscopical method

The European Standard EN ISO 1463:1994 has the status of a British Standard

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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/14 upon which the following bodies were represented:

- Aluminium Federation
- Association of Manufacturers of Domestic Electrical Appliances
- Association of Metal Sprayers
- British Anodising Association
- British Industrial Fasteners Federation
- British Jewellers' Association
- British Telecommunications
- City of London Polytechnic
- Department of Trade and Industry (National Physical Laboratory)
- Institute of Metal Finishing
- Institution of Corrosion Science and Technology
- Metal Finishing Association
- Ministry of Defence
- NDT Trade Association
- Society of Motor Manufacturers and Traders Limited
- Coopted member

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 31 January 1984

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National foreword

This revised Part of BS 5411 has been prepared under the direction of the Surface Coatings (other than Paints) Standards Committee. It is identical with the 1982 edition of ISO 1463 “*Metallic and oxide coatings — Measurement of coating thickness — Microscopical method*”, which was prepared, with the active participation and approval of the United Kingdom, by Subcommittee 2, Methods of inspection and co-ordination of test methods, of Technical Committee 107, Metallic and other non-organic coatings, of the International Organization for Standardization (ISO). This Part of BS 5411 supersedes BS 5411-5:1976 which is now withdrawn.

In 1994 the European Committee for Standardization (CEN) accepted ISO 1463:1982 as European Standard EN ISO 1463:1994. As a consequence of implementing the European Standard this British Standard is renumbered as BS EN ISO 1463 and any reference to BS 5411-5 should be read as a reference to BS EN ISO 1463.

The first edition of this Part of this British Standard differed in a number of respects from the first edition of ISO 1463. In the second edition of ISO 1463, dated 1982, many of the technical differences have been removed and those that remain are considered acceptable by the committee concerned. Accordingly, ISO 1463:1982 has been adopted for this edition of this Part of this British Standard.

This edition of BS 5411-5 differs from the previous edition in its editorial layout and also in the following principal respects.

- a) Information on the factors relating to the measuring accuracy has been added.
- b) A clause in the previous edition dealing with sampling has now been removed, as such information is expected to be included in the specification or other document referring to this Part of this British Standard.
- c) The guidance, given in Annex A, on the preparation and measurement of cross-sections has been expanded.
- d) In Annex B, the table of etchants has been brought up to date.

WARNING. This Part of this British Standard calls for the use of substances and/or procedures that may be injurious to health if adequate precautions are not taken. It refers only to technical suitability and does not absolve the user from legal obligations relating to health and safety at any stage.

In particular, attention is drawn to the need to take appropriate precautions in the preparation, use, handling and disposal of the etching solutions given in Annex B and also their individual components, in connection with the etchant solution **B.7**, given for the first time in this Part of this British Standard, **it should be noted that aqueous hydrofluoric acid is toxic, highly corrosive and attacks skin, eyes, and glass.** Prevent contact with eyes, skin and clothing or inhalation of fumes. Wear rubber protective clothing of adequate size and full head and face protection when handling the material. Carry out all operations involving its use in an effective fume cupboard.

Users of hydrofluoric acid are advised to consult appropriate literature for more detailed recommendations.

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.

Where the words “International Standard” appear, referring to this standard, they should be read as “Part of this British Standard”.

The lower case “l” has been used as an abbreviation for the litre. In British Standards it is current practice to use a capital “L” as the abbreviation for the litre.

Cross-reference

International Standard	Corresponding British Standard
ISO 2064:1980	BS 5411 <i>Methods of test for metallic and related coatings</i> Part 1:1980 <i>Definitions and conventions concerning the measurement of thickness</i> (Identical)

Additional information. With reference to Annex B, water complying with BS 3978 “*Water for laboratory use*” is suitable and the reagents used should be of analytical quality.

BS 871 “*Specification for abrasive paper and cloth*” gives requirements for, and grading of, abrasive papers and cloths for both technical and general purpose products.

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, the EN ISO title page, pages 2 to 8, 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.