

Metallic coatings — Measurement of coating thickness — Coulometric method by anodic dissolution

The European Standard EN ISO 2177:1994 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 plc
- 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

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 28 February 1986

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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 1985 edition of ISO 2177 “*Metallic coatings — Measurement of coating thickness — Coulometric method by anodic dissolution*” 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 This Part of BS 5411 supersedes BS 5411-4:1977 which is now withdrawn.

In 1994 the European Committee for Standardization (CEN) accepted ISO 2177:1985 as European Standard EN ISO 2177:1994. As a consequence of implementing the European Standard this British Standard is renumbered as BS EN ISO 2177 and any reference to BS 5411-4 should be read as a reference to BS EN ISO 2177.

The first edition of this Part of BS 5411 differed in a number of respects from the first edition of ISO 2177. In the second edition of ISO 2177, dated 1985, many of the technical differences have been removed and those that remain are considered acceptable by the committee concerned. Accordingly ISO 2177:1985 has been adopted for this edition of this Part of BS 5411.

This edition of BS 5411-4 differs from the previous edition in its editorial layout and also in the following principal respects.

- a) The scope has been extended to include coatings of autocatalytic nickel and tin-lead alloys, and substrates of nickel-cobalt-iron alloys, silver and non-metals.
- b) A new clause has been included listing those factors that may affect the accuracy of coating thickness measurements.
- c) The procedure has been extended to cover measurements of undercoat thickness and of coating thicknesses on cylindrical specimens.
- d) A clause has been included specifying information to be included in the test report.

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 BS 5411”.

In British Standards it is current practice to use the symbol “L” for litre (and its submultiples) rather than “l”, and to use the spelling “sulphur”, etc., instead of “sulfur”, etc.

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)

NOTE *Textual error.* In **B.0**, paragraph 3, line 3, “settings in” should be read as “settings if”.

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 title page, pages 2 to 14, 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.

ICS 25.220.40

Descriptors: Coatings, metal coatings, tests, determination, thickness, coulometric methods

English version

Metallic coatings — Measurement of coating thickness — Coulometric method by anodic dissolution

(ISO 2177:1985)

Revêtements métalliques — Mesurage de
l'épaisseur — Méthode coulométrique par
dissolution anodique
(ISO 2177:1985)

Metallische Überzüge —
Schichtdickenmessung — Coulometrisches
Verfahren durch anodisches Ablösen
(ISO 2177:1985)

This European Standard was approved by CEN on 1994-10-26. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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