

Metallic coatings — Measurement of coating thickness — Scanning electron microscope method

The European Standard EN ISO 9220:1994 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 Policy 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
- 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 Policy Committee, was published under the authority of the Board of BSI and comes into effect on 29 September 1989

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National foreword

This Part of BS 5411 has been prepared under the direction of the Surface Coatings (other than Paints) Standards Policy Committee. It is identical with ISO 9220:1988 “*Metallic coatings — Measurement of coating thickness — Scanning electron microscope method*”, which was prepared by 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.

In 1994 the European Committee for Standardization (CEN) accepted ISO 9220:1989 as European Standard EN ISO 9220:1994. As a consequence of implementing the European Standard this British Standard is renumbered as BS EN ISO 9220 and any reference to BS 5411-16 should be read as a reference to BS EN ISO 9220.

Other Parts of BS 5411 have been published as follows:

- *Part 1: Definitions and conventions concerning the measurement of thickness;*
- *Part 2: Review of methods of measurement of thickness;*
- *Part 3: Eddy current method for measurement of coating thickness of non-conductive coatings on non-magnetic basis metals;*
- *Part 4: Coulometric method for the measurement of coating thickness;*
- *Part 5: Measurement of local thickness of metal and oxide coatings by the microscopical examination of cross-sections;*
- *Part 6: Vickers and Knoop microhardness tests;*
- *Part 7: Profilometric method for measurement of coating thickness;*
- *Part 8: Measurement of coating thickness of metallic coatings: X-ray spectrometric methods¹⁾;*
- *Part 9: Measurement of coating thickness of electrodeposited nickel coatings on magnetic and non-magnetic substrates: magnetic method;*
- *Part 10: Review of methods available for testing adhesion of electrodeposited and chemically deposited metallic coatings on metallic substrates;*
- *Part 11: Measurement of coating thickness of non-magnetic metallic and vitreous or porcelain enamel coatings on magnetic basis metals: magnetic method;*
- *Part 12: Beta backscatter method for measurement of thickness;*
- *Part 13: Chromate conversion coatings on zinc and cadmium;*
- *Part 14: Gravimetric method for determination of coating mass per unit area of conversion coatings on metallic materials;*
- *Part 15: Review of methods of measurement of ductility.*

Cross-references

International Standard	Corresponding British Standard
	BS 5411 <i>Methods of test for metallic and related coatings</i>
ISO 1463:1982 ^a	Part 5:1984 <i>Measurement of local thickness of metal and oxide coatings by the microscopical examination of cross-sections</i> (Identical)
ISO 2064:1980	Part 1:1980 <i>Definitions and conventions concerning the measurement of thickness</i> (Identical)

^a Referred to for information only.

¹⁾ Withdrawn.

Additional information. For clarity, read 8.3.2 as “Repeat the measurement at three or more different locations a minimum of 3 mm apart on the photograph to determine the average spacing.”

ISO 1463 is not a normative reference, but appears under that heading.

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 5411-16.

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.

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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 10, 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.

