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**Metallic and other inorganic coatings —  
Guidelines for specifying metallic and  
inorganic coatings**

*Revêtements métalliques et autres revêtements inorganiques — Lignes directrices pour spécifier des revêtements métalliques et inorganiques*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 27830 was prepared by Technical Committee ISO/TC 107, *Metallic and other inorganic coatings*, Subcommittee SC 3, *Electrodeposited coatings and related finishes*.

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## Introduction

This International Standard specifies the technical requirements of metallic and other inorganic coatings in order to develop consistent technical standards, facilitate the understanding of technical requirements and ensure a standard format.

This International Standard provides guidance to those involved in the drafting of technical standards and assistance to users, purchasers and processors on interpreting the International Standards that specify metallic and other inorganic coatings.

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# Metallic and other inorganic coatings — Guidelines for specifying metallic and inorganic coatings

## 1 Scope

This International Standard specifies the technical requirements of metallic and other inorganic coatings in order to develop consistent technical standards and establishes a standard format for designating the coatings. It applies to International Standards for electrodeposited, autocatalytic and vapour deposited coatings.

Detailed technical requirements for individual coatings are not given in this International Standard, but can be found in the International Standards listed in the Bibliography.

This International Standard does not apply to thermally sprayed and porcelain enamel coatings.

This International Standard is not to be specified in technical standards, product specifications, contracts, purchase orders or on engineering drawings, as invoking a “method of specifying” in these documents is not contractually binding.

The main clauses of a *coating* standard shall be the following:

Introduction (optional)

1. Scope (mandatory)
2. Normative references (mandatory)
3. Terms and definitions (mandatory)
4. Information to be supplied to the electroplater or processor by the purchaser (mandatory)
5. Designation (mandatory)
6. Requirements (mandatory)
7. Sampling (mandatory)

Annexes A, B, C ...etc. (optional)

Bibliography (*optional*)

The Scope shall define the purpose of the standard and state the materials and products to which it applies, along with any known limitations. The Scope also contains warnings or caveats concerning health and safety hazards, international and environmental rules and regulations in bold font e.g.:

**WARNING — This International Standard might not be compliant with some countries' health, safety and environmental legislations and calls for the use of substances and/or procedures that might be injurious to health if adequate safety measures are not taken. This International Standard does not address any health hazards, safety or environmental matters and legislations associated with its use. It is the responsibility of the user of this International Standard to establish appropriate health, safety and environmentally acceptable practices and take appropriate action to comply with any national, regional and/or International regulations.**

Compliance with this International Standard does not of itself confer immunity from legal obligations.

## 2 Normative references

This clause shall begin with a standard introductory paragraph provided by ISO. The current wording of the introductory paragraph is as follows:

“The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.”

This introductory paragraph is followed by a complete list of the International Standards cited within the document, which are necessary for determining that the requirements of the standard have been met. The list is arranged in ascending order according to the International Standard number.

The normative references are most often International Standards, but national and regional standards may be cited at the end of the list, if necessary.

## 3 Terms and definitions

References to International Standards that define the terminology and conventions established for metallic and inorganic coatings are included in this clause. The standards cited shall be included in Clause 2.

This clause may also include terms that are not defined in existing standards and that are unique to a specific coating standard, e.g.:

“For the purposes of this document, the following terms and definitions apply/the terms and definitions given in ... and the following apply.”

## 4 Information to be supplied to the electroplater (or processor) by the purchaser

### 4.1 Essential information

The purchaser shall provide the essential information requested in this sub-clause, in writing, as part of the contract, purchase order, detailed product specification and/or on engineering drawings.

The essential information shall include the following items with cross-references, in parentheses, to the clauses and sub-clauses that provide further details about the requirements and test methods.

- a) The number of the International Standard and the designation as specified in the International Standard (see Clause 5);
- b) The appearance required, for example, bright, dull, satin, preferably with samples of the required finish (see Clause 6);
- c) The significant surface indicated by drawings or by suitably marked specimens (see Clause 6);
- d) The nature, condition and finish of the basis material, if they affect serviceability and/or the appearance of the coating (see Clause 6);
- e) The position on the surface for unavoidable defects, such as rack or contact marks (see Clause 6);
- f) The requirements for heat treatment before and/or after coating (see Clause 6);
- g) The standards for determining that thickness, corrosion, adhesion, porosity and other requirements have been met (see Clause 6);