

INTERNATIONAL STANDARD

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Metallic and other inorganic coatings — Definitions and conventions concerning appearance

*Revêtements métalliques et autres revêtements non organiques —
Définitions et principes concernant l'apparence*



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Foreword

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ISO 16348 was prepared by the European Committee for Standardization (CEN) in collaboration with Technical Committee ISO/TC 107, *Metallic and other inorganic coatings*, Subcommittee SC 2, *Test methods*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

Throughout the text of this document, read "...this European Standard..." to mean "...this International Standard...".

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Foreword

This document (EN ISO 16348:2003) has been prepared by Technical Committee CEN/TC 262 "Metallic and other inorganic coatings", the secretariat of which is held by BSI, in collaboration with Technical Committee ISO/TC 107 "Metallic and other inorganic coatings".

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2003, and conflicting national standards shall be withdrawn at the latest by November 2003.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

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1 Scope

This European Standard specifies appearance and its associated terms and outlines the principles involved in validating appearance when it is specified as a requirement of metallic and other inorganic coatings.

2 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply.

2.1

appearance

all the visual characteristics of the significant surface

2.2

uniformity of appearance

all the visual characteristics of a coating being the same over the entire area of the significant surface of the coated component(s) within a single batch or from batch to batch

2.3

blemish

superficial imperfection or a deviation from the appearance of a specified reference material that does not necessarily detract proper function from the product

2.4

visible defect

unacceptable physical imperfection or flaw in the surface coating detracting from the specified reference material or from the product functions

3 Principle

When specified as a requirement of a coating, it is mandatory to have a test for the validation of appearance, particularly for use as a referee method. The relevant detailed information shall be supplied by the product standard.

NOTE 1 In order to ensure the durability of approved samples special precautions may be necessary, e.g. storage in desiccators, or expiry dates applied depending on storage conditions.

If there is no method specified by the product standard, a comparator method can be used to determine both appearance and uniformity. This shall be achieved by comparing the coated product with a representative approved reference sample (see clause 4).

Measuring techniques such as glossmeters, surface profiling, colour matching and other suitable test methods may be used, provided the required properties are specified in the product standard or in the product purchase order.

NOTE 2 A description of appearance only is, in itself, inadequate.

4 Representative approved reference samples

There may be more than one approved reference sample representing the variations of the parameters within a defined production process.

The samples shall be fabricated and coated using the same processes and techniques as used on the purchased piece parts in order to ensure total consistency and reproducibility of product.

In order to avoid disputes, the agreement of all interested parties shall be obtained on every aspect of the approved reference samples. The approved reference samples shall be retained by all such parties for future inspection or reference purposes.

5 Inspection conditions

The inspection conditions, e.g. type of lighting, angle of incidence, magnification and distance, shall be agreed at the time of enquiry and order.

6 Test report

The report shall contain at least the following information:

- a) type of test and/or specification number;
- b) test conditions;
- c) details of article tested;
- d) examination/inspection conditions;
- e) any deviation from the product standard.

Bibliography

EN ISO 2064, *Metallic and other inorganic coatings — Definitions and conventions concerning the measurement of thickness (ISO 2064:1996)*.

ISO 2079, *Surface treatment and metallic coatings — General classification of terms*.

ISO 2080, *Electroplating and related processes — Vocabulary*.

ISO 10289, *Methods for corrosion testing of metallic and other inorganic coatings on metallic substrates — Rating of test specimens and manufactured articles subjected to corrosion tests*.

EN 12508, *Corrosion protection of metal and alloys — Surface treatment, metallic and other inorganic coatings — Vocabulary*.

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