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Metallic and other inorganic coatings — Surface treatment, metallic and other inorganic coatings — Vocabulary

Revêtements métalliques et autres revêtements inorganiques — Traitement de surface, revêtements métalliques et autres revêtements inorganiques — Vocabulaire

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 107, *Metallic and other inorganic coatings*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 262, *Metallic and other inorganic coatings, including for corrosion protection and corrosion testing of metals and alloys,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fourth edition cancels and replaces the third edition (ISO 2080:2008), which has been technically revised.

The main changes compared to the previous edition are as follows:

— new terms have been introduced;

— previous entries have been rationalized;

— some entries have been deleted.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

The terms and definitions in this document apply to electroplating and other related surface-finishing processes. The terms and definitions are not necessarily arranged in English alphabetical order. Related terms, giving different alternatives for a given process, have been grouped under a leading term, as, for example, in the case of “chemical plating”, “electrodeposition”, “blasting”, “cleaning” or “colour anodized aluminium”.

Basic terms and definitions relating to corrosion and electrochemical techniques used in corrosion science are given in ISO 8044 and are not included. Basic terms used in chemistry, electrochemistry or physics are also not included in this document. The definitions for such terms can be found in handbooks or dictionaries of chemistry or physics.

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Metallic and other inorganic coatings — Surface treatment, metallic and other inorganic coatings — Vocabulary

1 Scope

This document defines the terms related to the general types of surface-finishing processes. Emphasis is placed on practical usage in surface-finishing technology in the metal-finishing field.

This document does not include terms for porcelain and vitreous enamel, thermally sprayed coatings and galvanising for which specialized vocabularies and glossaries exist. For the most part, basic terms that have the same meaning in surface finishing as in other fields of technology, and that are defined in handbooks and dictionaries of chemistry and physics, are not included.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1 General types of surface-finishing processes and treatments

3.1.1
chemical plating
deposition of a metallic coating by chemical, non-electrolytic methods

3.1.1.1
autocatalytic plating
DEPRECATED: electroless plating
deposition of a metallic coating by a controlled chemical reduction that is catalysed by the metal or alloy being deposited

3.1.1.2
contact plating
deposition of a metal by use of an internal source of current by immersing the *work* (3.2.218) in contact with another metal in a solution containing a compound of the metal to be deposited

3.1.1.3
immersion coating
metallic coating produced by a displacement reaction in which one metal displaces another from a solution

EXAMPLE $Fe + Cu^{2+} \rightarrow Cu + Fe^{2+}$

3.1.2
chemical vapour deposition
CVD
deposition of a coating by a chemical reaction, induced by heat or gaseous reduction of vapour condensing on a *substrate* (3.2.205)

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