SLOVENSKI STANDARD
SIST EN ISO 4521:2008

01-november-2008

Kovinske in druge anorganske prevleke - Galvanske prevleke srebra in srebrovih zlitin za tehniļne namene - Specifikacija in preskusne metode (ISO 4521:2008)

Metallic and other inorganic coatings - Electrodeposited silver and silver alloy coatings for engineering purposes - Specification and test methods (ISO 4521:2008)

Metallische Überzüge - Galvanische Silber- und Silberlegierungs-Überzüge für technische Zwecke - Anforderungen und Prüfverfahren (ISO 4521:2008)

Revêtements métalliques et autres revêtements inorganiques - Dépôts électrolytiques d'argent et d'alliages d'argent pour applications industrielles - Spécifications et méthodes d'essai (ISO 4521:2008)

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25.220.40 Kovinske prevleke Metallic coatings

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English Version

Metallic and other inorganic coatings - Electrodeposited silver and silver alloy coatings for engineering purposes - Specification and test methods (ISO 4521:2008)

Revêtements métalliques et autres revêtements inorganiques - Dépôts électrolytiques d'argent et d'alliages d'argent pour applications industrielles - Spécifications et méthodes d'essai (ISO 4521:2008)

Metallische Überzüge - Galvanische Silber- und Silberlegierungs-Überzüge für technische Zwecke - Anforderungen und Prüfverfahren (ISO 4521:2008)

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Foreword

This document (EN ISO 4521:2008) has been prepared by Technical Committee ISO/TC 107 "Metallic and other inorganic coatings" in collaboration with Technical Committee CEN/TC 262 “Metallic and other inorganic coatings” the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by March 2009, and conflicting national standards shall be withdrawn at the latest by March 2009.

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Endorsement notice

The text of ISO 4521:2008 has been approved by CEN as a EN ISO 4521:2008 without any modification.

INTERNATIONAL STANDARD

ISO 4521

Second edition
2008-09-01

Metallic and other inorganic coatings — Electrodeposited silver and silver alloy coatings for engineering purposes — Specification and test methods

Revêtements métalliques et autres revêtements inorganiques — Dépôts électrolytiques d'argent et d'alliages d'argent pour applications industrielles — Spécifications et méthodes d'essai

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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.

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ISO 4521 was prepared by Technical Committee ISO/TC 107, *Metallic and other inorganic coatings*, Subcommittee SC 3, *Electrodeposited coatings and related finishes*.

This second edition cancels and replaces the first edition (ISO 4521:1985), and also ISO 4522-1:1985, ISO 4522-2:1985 and ISO 4522-3:1988, which have been technically revised.

Introduction

Electrodeposited silver and silver alloy coatings are often specified for their extremely good electrical conductivity, but corrosion protection is often an additional requirement for electrical, electronic and other applications. In many conditions of service, sulfide films may form on the coatings, increasing the contact resistance at the silver electroplated mating surface and making them unsuitable for use in low-voltage electronic circuits. Sulfide films are not especially detrimental to other electronic applications where higher voltage and higher contact pressures are used, because the films are not completely insulating.

Because the appearance and serviceability of electroplated silver coatings depend on the condition of the basis material, agreement should be reached between interested parties that the surface finish and roughness of the basis material are satisfactory for electroplating.

Electroplated silver coatings have been used as bearing surfaces for many decades and are particularly useful where the load-bearing surfaces are not well lubricated.

Electroplated silver coatings have largely replaced electroplated gold coatings on metallic lead frames, the devices that support the majority of silicon chips.