SLOVENSKI STANDARD
SIST EN ISO 17668:2016

01-maj-2016

Nadomešča:
SIST EN 13811:2003

Cinkove difuzijske prevleke na železovih izdelkih - Šeradiranje - Specifikacija (ISO 17668:2016)

Zinc diffusion coatings on ferrous products - Sherardizing - Specification (ISO 17668:2016)

Zink-Diffusionsbeschichtungen auf Eisen - Sherardisieren - Anforderungen (ISO 17668:2016)

Revêtements par diffusion de zinc sur les produits ferreux - Shérardisation - Spécification (ISO 17668:2016)

Ta slovenski standard je istoveten z: **EN ISO 17668:2016**

ICS:

25.220.40	Kovinske prevleke	Metallic coatings
77.120.60	Svinec, cink, kositer in njihove zlitine	Lead, zinc, tin and their alloys

SIST EN ISO 17668:2016 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

Zinc diffusion coatings on ferrous products - Sherardizing - Specification (ISO 17668:2016)

Revêtements par diffusion de zinc sur les produits ferreux - Shérardisation - Spécification (ISO 17668:2016)

Zink-Diffusionsüberzüge auf Eisen - Sherardisieren - Anforderungen (ISO 17668:2016)

This European Standard was approved by CEN on 2 January 2016.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN ISO 17668:2016) 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of an identical text or by endorsement, at the latest by September 2016, and conflicting national standards shall be withdrawn at the latest by September 2016.

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Endorsement notice

The text of ISO 17668:2016 has been approved by CEN as EN ISO 17668:2016 without any modification.

INTERNATIONAL STANDARD

ISO 17668

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Zinc diffusion coatings on ferrous products — Sherardizing — Specification

Revêtements par diffusion de zinc sur les produits ferreux — Shérardisation — Spécification

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Foreword

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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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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information.

The committee responsible for this document is ISO/TC 107, *Metallic and other inorganic coatings*, Subcommittee SC 4, *Hot dip coatings (galvanized, etc.)*.

Introduction

Sherardizing is a thermal diffusion coating process in which ferrous articles are heated in the presence of a sherardizing mixture consisting of zinc dust with or without an inert material.

The process is commonly performed in closed, slowly rotating or fixed containers at temperatures ranging from around 300 °C to 500 °C. The normal processing temperature is below the melting point of zinc (419 °C).

During the process, zinc reacts with the surface to form inter-metallic layers on ferrous articles.

A coating thickness of 10 µm to 75 µm (and higher if required) can be achieved. The coating thickness is accurately controlled by the amount of zinc dust, processing time and temperature. The coating closely follows the contours of the base material and uniform coating thicknesses are produced on articles, including those of irregular shape.

After sherardizing, the container load is cooled down. A screening process separates the sherardized articles from the unused sherardizing mixture. The articles, with the zinc-iron inter-metallic layers, are eventually post-treated (by phosphating, chromating or another suitable passivation process) resulting in a clean and passivated surface.

It is common to use articles coated with zinc-iron inter-metallic layers as a primer or base-coat for duplex-systems.

For additional information about the sherardizing process and the application possibilities of sherardized articles, see Reference [12] and Reference [13].

Sherardizing (thermal diffusion coating) is also known as the following:

— diffusion zinc plating (Germany);

— thermal diffusion coating (Russia);

— thermal diffusion galvanizing (Ukraine);

— vapour galvanizing (UK);

— zinc diffusion coating (USA);

— zinc inter-metallic coating (Russia);

— zinc thermo diffusion galvanizing (Israel).

In China, Europe and the USA, the common name for the thermal diffusion coating process is sherardizing.