
**Zinc coatings — Guidelines and
recommendations for the protection
against corrosion of iron and steel in
structures —**

**Part 2:
Hot dip galvanizing**

*Revêtements de zinc — Lignes directrices et recommandations
pour la protection contre la corrosion du fer et de l'acier dans les
constructions —*

Partie 2: Galvanisation à chaud

ISO 14713-2:2019

<https://standards.iteh.ai/catalog/standards/iso/38aecb26-82ea-4c96-a898-8baa1f45a33c/iso-14713-2-2019>



iTeh Standards
(<https://standards.itih.ai>)
Document Preview

ISO 14713-2:2019

<https://standards.itih.ai/catalog/standards/iso/38aecb26-82ea-4c96-a898-8baa1f45a33c/iso-14713-2-2019>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2019

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Design for hot dip galvanizing	2
4.1 General	2
4.2 Surface preparation	2
4.3 Procedures related to design considerations	2
4.4 Design features	3
4.5 Tolerances	3
5 Design for storage and transport	3
6 Effect of article condition on quality of hot dip galvanizing	4
6.1 General	4
6.2 Material composition	4
6.3 Castings	5
6.4 Surface condition	6
6.5 Influence of steel surface roughness on the hot dip galvanized coating thickness	6
6.6 Influence of thermal cutting processes and welding	6
6.6.1 Thermal cutting	6
6.6.2 Welding	6
6.6.3 Free edges	6
6.7 Effect of internal stresses in the steel article	7
6.7.1 General	7
6.7.2 Distortion cracking	7
6.7.3 Hydrogen embrittlement	7
6.7.4 Strain age embrittlement	7
6.7.5 Liquid metal assisted cracking or liquid metal embrittlement	8
6.8 Large objects or thick steels	8
6.9 Hot dip galvanizing practice	8
7 Effect of hot dip galvanizing process on the article	8
7.1 Dimensional tolerances on mating threads	8
7.2 Effect of process heat	9
8 After-treatments	9
Annex A (informative) Preferred designs of articles for hot dip galvanizing	10
Bibliography	21

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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 107, *Metallic and other inorganic coatings*, Subcommittee SC 4, *Hot dip coatings (galvanized, etc.)*.

This second edition cancels and replaces the first edition (ISO 14713-2:2009), which has been technically revised. The main changes compared with the previous edition are as follows:

- minor technical changes have been made and two new notes have been added to [Table 1](#);
- improvements have been made to the clarity of recommendations throughout [Clause 6](#);
- extensive revisions have been made to the figures in [Annex A](#);
- [Tables A.1](#), [A.2](#) and [A.3](#) have been added in [Annex A](#).

A list of all parts in the ISO 14713 series can be found on the ISO website.

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.