



JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS G 3548 : 2011

(JWPA)

Zinc-coated steel wires

ICS 77.140.10;77.140.65

Reference number : JIS G 3548 : 2011 (E)

PROTECTED BY COPYRIGHT



Documents

Document Sharing Hub

8 S

Date of Establishment: 1994-11-01

Data of Revision: 2011-09-20

Date of Public Notice in Official Gazette: 2011-09-20

Investigated by: Japanese Industrial Standards Committee

Standards Board

Technical Committee on Iron and Steel

JIS G 3548 : 2011, First English edition published in 2012-03

Translated and published by: Japanese Standards Association
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

© JSA 2012

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

Printed in Japan

SW

PROTECTED BY COPYRIGHT

Contents

	Page
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Wire types, symbols and applicable wire diameters	1
5 Material	2
6 Method of manufacture	2
7 Mechanical properties	2
7.1 Tensile strength	2
7.2 Elongation	2
7.3 Torsion characteristic	2
8 Zinc coating characteristic	3
8.1 Zinc coating mass	3
8.2 Windability	5
9 Preferred wire diameter, tolerances on wire diameter and out-of-roundness	5
9.1 Preferred wire diameters	5
9.2 Tolerances on wire diameters and out-of-roundness	5
10 Appearance	6
11 Tests	6
11.1 Sampling	6
11.2 Tensile test	6
11.3 Torsion test	6
11.4 Coating mass test	7
11.5 Windability test	8
11.6 Measurement of wire diameter	8
12 Inspection	8
13 Designation of product	8
14 Marking	8
15 Report	9

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry, through deliberations at the Japanese Industrial Standards Committee as the result of proposal of revision of Japanese Industrial Standard submitted by Japan Wire Products Association (JWPA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14.

Consequently **JIS G 3548** : 2008 is replaced with this Standard.

However, **JIS G 3548**:2008 may be applied in the **JIS** mark certification based on the relevant provisions of Article 19 Clause 1, etc. of the Industrial Standardization Law until June 19th, 2012.

This **JIS** document is protected by the Copyright Law.

Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public or utility model right which have technical properties. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public or utility model right which have the said technical properties.

Zinc-coated steel wires

1 Scope

This Japanese Industrial Standard specifies zinc-coated steel wires (hereafter referred to as "steel wires").

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS G 3506 *High carbon steel wire rods*

JIS H 0401 *Test methods for hot dip galvanized coatings*

JIS Z 2241 *Metallic materials—Tensile testing—Method of test at room temperature*

JIS Z 8401 *Guide to the rounding of numbers*

3 Terms and definitions

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

3.1 zinc-coated steel wire (F)

a steel wire of a circular sectional form, obtained by heat-treating (patenting, annealing, etc.) a wire rod conforming to **JIS G 3506**, and then cold-working and coating it with zinc by hot-dipping or electrolyzing

3.2 zinc-coated steel wire (D)

a steel wire of a circular sectional form obtained by heat-treating (patenting, annealing, etc.) a wire rod conforming to **JIS G 3506**, cold-working it, heat-treating (patenting, annealing, etc.) it again if necessary, and then coating it with zinc by hot-dipping or electrolyzing, followed by further cold-working

4 Wire types, symbols and applicable wire diameters

Steel wires shall be classified into zinc-coated steel wires (F) and zinc-coated steel wires (D) according to the presence of wire drawing after metallic coating, and further sub-classified into Grades 1 to 6 and Grades 1 to 3, respectively, according to the tensile strength and zinc coating mass thereof. The symbols and applicable wire diameters thereof shall be as given in table 1.