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**Electrolytic zinc-coated steel sheet and
strip**

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In the event of any doubts arising as to the contents,
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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 for revision of Japanese Industrial Standard submitted by The Japan Iron and Steel Federation (JISF) 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 3313:2010** is replaced with this Standard.

However, **JIS G 3313: 2010** 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 August 19, 2016.

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

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, applications for a patent after opening to the public or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, applications for a patent after opening to the public or utility model rights.

Electrolytic zinc-coated steel sheet and strip

Introduction

This Japanese Industrial Standard has been prepared based on the fourth edition of **ISO 5002** published in 2013 with some modifications of the technical contents.

The portions given sidelines or dotted underlines are the matters in which the contents of the corresponding International Standard have been modified. A list of modifications with the explanations is given in Annex JJ.

1 Scope

This Standard specifies electrolytic zinc-coated steel sheet (hereafter referred to as “sheet”) and strip (hereafter referred to as “coil”).

NOTE : The International Standard corresponding to this Standard is as follows.

ISO 5002 : 2013 *Hot-rolled and cold-reduced electrolytic zinc-coated carbon steel sheet of commercial and drawing qualities* (MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standards and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

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 B 7721 *Tension/compression testing machines — Verification and calibration of the force-measuring system*

JIS G 0404 *Steel and steel products — General technical delivery requirements*

JIS G 0415 *Steel and steel products — Inspection documents*

JIS G 0594 *Methods of accelerated cyclic corrosion resistance tests for anodic coatings with exposure to salt spray, dry and wet conditions*

JIS G 1257-0 *Iron and steel — Atomic absorption spectrometric method — Part 0 : General rules*

JIS G 1258-0 *Iron and steel — ICP atomic emission spectrometric method — Part 0 : General rules*

JIS G 3101 *Rolled steels for general structure*

JIS G 3113 *Hot-rolled steel plate, sheet and strip for automobile structural uses*

JIS G 3131 *Hot-rolled mild steel plates, sheet and strip*

JIS G 3134 *Hot-rolled high strength steel plate, sheet and strip with improved formability for automobile structural uses*

JIS G 3135 *Cold-reduced high strength steel sheet and strip with improved formability for automobile structural uses*

JIS G 3141 *Cold-reduced carbon steel sheet and strip*

JIS H 8502 *Methods of corrosion resistance test for metallic coatings*

JIS K 0119 *General rules for X-ray fluorescence analysis*

JIS K 5600-7-9 *Testing methods for paints — Part 7 : Determination of resistance to cyclic corrosion conditions — Section 9 : Salt fog/dry/humidity*

JIS K 8001 *General rule for test methods of reagents*

JIS K 8847 *Hexamethylenetetramine (Reagent)*

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

JIS Z 2244 *Vickers hardness test — Test method*

JIS Z 2245 *Rockwell hardness test — Test method*

JIS Z 2248 *Metallic materials — Bend test*

JIS Z 8401 *Guide to the rounding of numbers*

3 Classification, symbols, applicable nominal thickness¹⁾, base metal and temper grade

The sheets and coils shall be classified into 16 grades manufactured by using hot-rolled strip (hereafter referred to as “hot-rolled base metal”) and into 18 grades manufactured by using cold-reduced strip (hereafter referred to as “cold-reduced base metal”). The symbols of grade and applicable nominal thicknesses shall be as given in Tables 1 and 2.

Hot-rolled base metals used for sheet and coil shall be the steel strip specified in **JIS G 3101**, **JIS G 3113**, **JIS G 3131** and **JIS G 3134**, and cold-reduced base metals shall be the steel strip specified in **JIS G 3135** and **JIS G 3141**. The application shall be as given in Tables 1 and 2, respectively. The steel strip specified in **JIS G 3141** shall be dull finished. For steels of grades SECC, SECD, SECE, SECF and SECG given in Table 2, the temper grades and the symbols shall be as given in Table 3.

Note ¹⁾ The nominal thickness means the thickness of base metal before coating [see **8.1.1 a**].

Table 1 Symbol of grade and applicable nominal thickness
[hot-rolled base metal ^{a)}]

Unit: mm

Symbol of grade	Applicable nominal thickness	Symbol of grade for hot-rolled base metal to be used ^{b)}	Application
SEHC ^{c)}	1.6 or over up to and incl. 4.5	SPHC	Commercial
SEHD ^{c)}		SPHD	Drawing
SEHD ^{c)}		SPHE	Deep drawing
SEFH490		SPFH490	Forming
SEFH540		SPFH540	
SEFH590		SPFH590	
SEFH540Y	2.0 or over up to and incl. 4.0	SPFH540Y	Improved forming
SEFH590Y		SPFH590Y	
SE330	1.6 or over up to and incl. 4.5	SS330	Commercial use (high strength)
SE400		SS400	
SE490		SS490	
SE540		SS540	
SEPH310		SAPH310	General forming (high strength)
SEPH370		SAPH370	
SEPH400		SAPH400	
SEPH440		SAPH440	
Notes ^{a)} For nominal thickness 1.6 mm or over up to and including 3.2 mm, it is permitted to use cold-reduced base metal which satisfies the specification of hot-rolled base metal unless it is required to use hot-rolled base metal.			
^{b)} SPHC, SPHD and SPHE are specified in JIS G 3131. SPFH490 to SPFH590Y are specified in JIS G 3134. SS330 to SS540 are specified in JIS G 3101. SAPH310 to SAPH440 are specified in JIS G 3113.			
^{c)} For SEHC, SEHD and SEHE, the nominal thickness other than that specified in this table may be applied upon agreement between the purchaser and the manufacturer.			