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JIS

JAPANESE INDUSTRIAL STANDARD

Electrolytic zinc-coated steel sheets and coils

JIS G 3313—1990

Translated and Published

by

Japanese Standards Association

In the event of any doubt arising,
the original Standard in Japanese is to be final authority.

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Electrolytic zinc-coated steel sheets and coils G 3313-1990

1. Scope

1.1 This Japanese Industrial Standard specifies the electrolytic zinc-coated steel sheets and coils (hereinafter, referred to as sheets and coils).

1.2 Base metals used for sheets and coils shall, as a rule, comply with JIS G 3101, JIS G 3113, JIS G 3131, JIS G 3134, JIS G 3135, and JIS G 3141.

However, the base metals complying with JIS G 3141 shall, as a rule, be of dull finish of standard temper grade.

Remarks 1. The Applicable Standards and corresponding International Standard are as listed below:

JIS B 7721-Tensile Testing Machines

JIS G 0303-General Rules for Inspection of Steel

JIS G 1257-Methods for Atomic Absorption Spectrochemical Analysis of Iron and Steel

JIS G 3101-Rolled Steel for General Structure

JIS G 3113-Hot-rolled Steel Plates, Sheets and Strip for Automobile Structural Uses

JIS G 3131-Hot-rolled Mild Steel Plates, Sheets and Strip

JIS G 3134-Hot Rolled High Strength Steel Sheets with Improved Formability for Automobile Structural Uses

JIS G 3135-Cold Rolled High Strength Steel Sheets with Improved Formability for Automobile Structural Uses

JIS G 3141-Cold Rolled Carbon Steel Sheets and Strip

JIS G 3193-Dimensions, Weight and Permissible Variations of Hot Rolled Steel Plates, Sheets and Strip

JIS H 0401-Methods of Test for Hot Dip Galvanized Coatings

JIS K 8001-General Rules of Testing Methods for Reagent

JIS Z 2201-Test Pieces for Tensile Test for Metallic Materials

JIS Z 2241-Method of Tensile Test for Metallic Materials

JIS Z 2244-Method of Vickers Hardness Test

JIS Z 2245-Method of Rockwell and Rockwell Superficial Hardness Test

JIS Z 2247-Method of Erichsen Cupping Test

JIS Z 8401-Rules for Rounding off of Numerical Values

ISO 5002-1982 Hot-rolled and cold-reduced electrolytic zinc-coated carbon steel sheet of commercial and drawing qualities

2. The units and numerical values given in { }in this standard are based on the International System of Units (SI) and appended for informative reference.

Further, the traditional units accompanied by numerical values in this Standard shall be converted to the SI units and numerical values on January 1, 1991.

2. Classification and Designation

Sheets and coils shall be classified into 16 categories in the case of hot-rolled base metals and another 16 categories in the case of cold-rolled base metals. Their designations shall be as given in Tables 1-1, 1-2, 2-1, and 2-2.

Table 1-1. Classification and Designation
(In the case of hot-rolled base metal)
(Applicable till December 31, 1990)

Designation of class	Nominal thickness mm	Application	
		Main use	Class designation of base metal in relevant JIS
SEHC	1.6 or over, up to and including 4.5	For commercial quality	SPHC
SEHD		For drawing quality	SPHD
SEHE	1.6 or over, up to and including 4.5	For deep drawing quality	SPHE
SEFH50	1.6 or over, up to and including 4.5	For forming quality	SPFH50
SEFH55			SPFH55
SEFH60			SPFH60
SEFH55Y	2.0 or over, up to and including 4.0	For improved forming quality	SPFH55Y
SEFH60Y			SPFH60Y
SE34	1.6 or over, up to and including 4.5	For general structural quality	SS34
SE41			SS41
SE50			SS50
SE55			SS55
SEPH32	1.6 or over, up to and including 4.5	For structural quality	SAPH32
SEPH38			SAPH38
SEPH41			SAPH41
SEPH45			SAPH45

Remark: Nominal thicknesses other than those listed in Table 1-1 for SEHC, SEHD, and SEHE may be agreed between the purchaser and supplier.

Table 1-2. Classification and Designation
(In the case of hot-rolled base metal)
(Applicable on and after January 1, 1991)

Designation of class		Nominal thickness mm	Application	
SI unit	(Reference) Traditional unit		Main use	Class designation of base metal in relevant JIS
SEHC	SEHC	1.6 or over, up to and including 4.5	For commercial quality	SPHC
SEHD	SEHD		For drawing quality	SPHD
SEHE	SEHE	1.6 or over, up to and including 4.5	For deep drawing quality	SPHE
SEFH490	SEFH50	1.6 or over, up to and including 4.5	For forming quality	SPFH490
SEFH540	SEFH55			SPFH540
SEFH590	SEFH60			SPFH590
SEFH540Y	SEFH55Y	2.0 or over, up to and including 4.0	For improved forming quality	SPFH540Y
SEFH590Y	SEFH60Y			SPFH590Y
SE330	SE34	1.6 or over, up to and including 4.5	For general structural quality	SS330
SE400	SE41			SS400
SE490	SE50			SS490
SE540	SE55			SS540
SEPH310	SEPH32	1.6 or over, up to and including 4.5	For structural quality	SAPH310
SEPH370	SEPH38			SAPH370
SEPH400	SEPH41			SAPH400
SEPH440	SEPH45			SAPH440

Remark: Nominal thicknesses other than those listed in Table 1-2 for SEHC, SEHD, and SEHE may be agreed between the purchaser and supplier.

Table 2-1. Classification and Designation
(In the case of cold-rolled base metal)
(Applicable till December 31, 1990)

Designation of class	Nominal thickness mm	Application	
		Main use	Class designation of base metal in relevant JIS
SECC	0.4 or over, up to and including 3.2	For commercial quality	SPCC
SECD	0.4 or over, up to and including 3.2	For drawing quality	SPCD
SECE	0.4 or over, up to and including 3.2	For deep drawing quality	SPCE
SEFC35	0.6 or over, up to and including 2.3	For spinning quality	SPFC35
SEFC38			SPFC38
SEFC40	0.6 or over, up to and including 2.3	For forming quality	SPFC40
SEFC45			SPFC45
SEFC50			SPFC50
SEFC55			SPFC55
SEFC60			SPFC60
SEFC50Y	0.6 or over, up to and including 1.6	Lower yield ratio type	SPFC50Y
SEFC55Y			SPFC55Y
SEFC60Y			SPFC60Y
SEFC80Y	0.8 or over, up to and including 1.4		SPFC80Y
SEFC100Y			SPFC100Y
SEFC35H	0.6 or over, up to and including 1.6	Baked and hardening type	SPFC35H

Remarks 1. When sheets and coils of standard temper grade and as-annealed in quality SECC are requested by the purchaser to proof either the tensile tests, Erichsen tests, or both of them, a letter symbol T shall be suffixed to the class designation thus appears SECCT.

2. When sheets and coils of standard temper grade in quality SECE are requested by the purchaser to proof non-aging property, a letter symbol N shall be suffixed to the class designation thus appears SECEN.

3. Nominal thicknesses other than those listed in Table 2-1 for SECC, SECD, and SECE, may be agreed between the purchaser and supplier.

4. Designation symbols indicating the sort of temper grade for SECC, SECD, or SECE shall comply with Table 3.

Table 2-2. Classification and Designation
(In the case of cold-rolled base metal)
(Applicable on and after January 1, 1991)

Designation of class		Nominal thickness mm	Application	
SI unit	(Reference) Traditional unit		Main use	Class designation of base metal in relevant JIS
SECC	SECC	0.4 or over, up to and including 3.2	For commercial quality	SPCC
SECD	SECD	0.4 or over, up to and including 3.2	For drawing quality	SPCD
SECE	SECE	0.4 or over, up to and including 3.2	For deep drawing quality	SPCE
SEFC340	SEFC35	0.6 or over, up to and including 2.3	For spinning quality	SPFC340
SEFC370	SEFC38			SPFC370
SEFC390	SEFC40	0.6 or over, up to and including 2.3	For forming quality	SPFC390
SEFC440	SEFC45			SPFC440
SEFC490	SEFC50			SPFC490
SEFC540	SEFC55			SPFC540
SEFC590	SEFC60			SPFC590

Table 2-2. (Continued)

Designation of class		Nominal thickness mm	Application	
SI unit	(Reference) Traditional unit		Main use	Class designation of base metal in relevant JIS
SEFC490Y	SEFC50Y	0.6 or over, up to and including 1.6	Lower yield ratio type	SPFC490Y
SEFC540Y	SEFC55Y			SPFC540Y
SEFC590Y	SEFC60Y			SPFC590Y
SEFC780Y	SEFC80Y	0.8 or over, up to and including 1.4		SPFC780Y
SEFC980Y	SEFC100Y			SPFC980Y
SEFC340H	SEFC35H	0.6 or over, up to and including 1.6	Baked and hardening type	SPFC340H

Remarks 1. When sheets and coils of standard temper grade and as-annealed in quality SECC are requested by the purchaser to proof either the tensile tests, Erichsen tests, or both of them, a letter symbol T shall be suffixed to the class designation thus appears SECCT.

2. When sheets and coils of standard temper grade in quality SECE are requested by the purchaser to proof non-aging property, a letter symbol N shall be suffixed to the class designation thus appears SECEN.

3. Nominal thicknesses other than those listed in Table 2-2 for SECC, SECD, and SECE may be agreed between the purchaser and supplier.

4. Designation symbols indicating the sort of temper grade for SECC, SECD, or SECE shall comply with Table 3.