Prepainted hot-dip 55 % aluminium-zinc alloy-coated steel sheets and coils

- 1 Scope This Japanese Industrial Standard specifies the prepainted hot-dip 55 % aluminium-zinc alloy-coated steel sheets and coils (hereafter referred to as "sheet and coil"), produced by coating and baking durable synthetic resin paint uniformly on either one or both surfaces of hot-dip 55 % aluminium-zinc alloy-coated steel sheets and coils (hereafter referred to as "substrate for prepainting"), using coil-reduced base metal specified in JIS G 3321. In this case, the term "sheet" includes not only sheets in flat form, but also corrugated sheets of the shapes and dimensions specified in JIS G 3316.
- 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) shall be applied.
 - JIS B 7753 Light-exposure and light-and-water-exposure apparatus (Open-flame sunshine carbon-arc type)
 - JIS G 0404 Steel and steel products-General technical delivery requirements
 - JIS G 0415 Steel and steel products-Inspection documents
 - JIS G 3316 Shapes and dimensions of corrugated steel sheets
 - JIS G 3321 Hot-dip 55 % aluminium-zinc alloy-coated steel sheets and coils
 - JIS H 8502 Methods of corrosion resistance test for metallic coatings
 - JIS K 5600-7-6 Testing methods for paints—Part 7: Long-period performance of film—Section 6: Natural weathering
 - JIS K 5600-8-1 Testing methods for paints—Part 8: Evaluation of degradation of paint coatings—Section 1: General principles and rating schemes
 - JIS K 5600-8-2 Testing methods for paints—Part 8: Evaluation of degradation of paint coatings—Section 2: Designation of degree of blistering
 - JIS K 5600-8-4 Testing methods for paints—Part 8: Evaluation of degradation of paint coatings—Section 4: Designation of degree of cracking
 - JIS K 5600-8-5 Testing methods for paints—Part 8: Evaluation of degradation of paint coatings—Section 5: Designation of degree of flaking
 - JIS K 5600-8-6 Testing methods for paints—Part 8: Evaluation of degradation of paint coatings—Section 6: Rating of degree of chalking
 - JIS K 5621 Anticorrosive paint for general use
 - JIS R 6252 Abrasive papers
 - JIS S 6006 Pencils, coloured pencils and leads for them
 - JIS Z 1522 Pressure sensitive adhesive cellophane tapes
 - JIS Z 2371 Methods of salt spray testing
 - JIS Z 8401 Guide to the rounding of numbers

JIS Z 8703 Standard atmospheric conditions for testing JIS Z 9117 Retroreflective sheeting and tape for safety

3 Classification and symbol

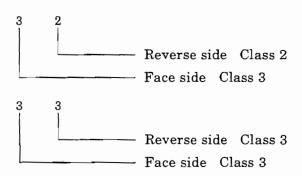
3.1 Classification and symbol of durability of paint coatings The durability of paint coatings shall be classified into three classes, and their symbols shall be as given in table 1.

Table 1 Class of durability of paint coatings and symbol

Class	Symbol	Durability
Class 1	1	Mainly one coat having durability as specified in clause 5.
Class 2	2	Mainly two coats having durability as specified in clause 5.
Class 3	3	Mainly two coats or more having durability as specified in clause 5.

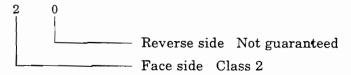
Remarks 1 The classes of paint coating durability for the face side and the reverse side shall be expressed in 2-digit figures consisting of a combination of the symbols used to represent the classes of durability for respective sides.

Example:



2 For both-side paint coatings for which the quality is guaranteed for the face side only, the non-guaranteed side shall be expressed in the figure 0.

Example:



- 3 The term "guarantee" herein means that the products meet the quality requirements specified in clauses 5, 6 and 12.
- **3.2 Classification of applications** Sheet and coil shall be classified into 6 types, and their classified symbols shall be as shown in table 2.

Table 2 Classification and symbols

Unit: mm

Classified symbol	Applicable nominal thickness (1)	Application	Classified symbol of substrate for prepainting
CGLCC	0.25 or over up to and incl. 2.3	Commercial quality	SGLCC
CGLCD	0.40 or over up to and incl. 1.6	Drawing quality	SGLCD, SGLCDD
CGLC400	0.25 or over up to and incl. 1.6	Structural quality	SGLC400
CGLC440	0.25 or over up to and incl. 1.6		SGLC440
CGLC490	0.25 or over up to and incl. 1.6		SGLC490
CGLC570	0.25 or over up to and incl. 1.6		SGLC570

Note (1) The nominal thickness shall be in accordance with 7 a).

- Remarks 1 Nominal thicknesses other than those listed in table 2 may be agreed upon between the purchaser and the supplier.
 - 2 The mass of coating on substrate for prepainting shall be as specified in **JIS G 3321**.
 - 3 For sheet and coil for roofing and architectural siding shall be accompanied by the symbol R for roofing and the symbol A for architectural siding after the classified symbol given in table 2. In this case, the nominal thickness and the mass of coating shall be as specified in annex 1 of JIS G 3321.
 - 4 For the sheet and coil subjected to corrugating in accordance with **JIS G** 3316, the symbol W and the shape symbol for corrugated sheets shall be suffixed to the classified symbol given in table 2. In this case, the nominal thickness and the mass of coating shall be as specified in annex 2 of **JIS G** 3321.
 - 5 For corrugated sheets, the commercial and structural qualities listed in table 2 shall be used.
 - 6 For roofing and architectural siding applications, Class 2 or superior in the classification of paint coating durability shall be applied.
 - 7 Sheet and coil for roofing, for which the quality is guaranteed for one side, shall be coloured beige or green on the reverse side of Class 2.

Information: Examples of symbols for type designation

- Prepainted hot-dip 55 % aluminium-zinc alloy-coated steel sheets and coils of commercial quality, Class 2, one-side guaranteed CGLCC-20.
- Prepainted hot-dip 55 % aluminium-zinc alloy-coated steel sheets and coils of commercial quality for roofing, Class 2, both-side guaranteed CGLCCR-22.
- Prepainted hot-dip 55 % aluminium-zinc alloy-coated steel sheets and coils of structural quality, Class 3 (Class 2 for reverse side), both-side guaranteed CGLC400-32.
- Prepainted hot-dip 55 % aluminium-zinc alloy-coated corrugated steel sheets of commercial quality for roofing, Class 2, one-side guaranteed CGLCCR-20 W2.

4 Protective surface treatment For protective treatments, when applied on the surface of sheet and coil, the types and their symbols shall be as given in table 3.

Table 3 Types of protective surface treatment and symbols

Type of protective surface treatment	Symbol
Protective film	P
Wax application	T

- 5 Paint coating durability The durability of paint coating of the sheet and coil shall be in accordance with any of the following:
- a) After the test was performed for the duration of time given in table 16 in accordance with 13.1.1, no defects, except for slight blistering and rust, shall be found on the test piece.

For the limit of slight blistering, 2 (S2) of **JIS K 5600-8-1** and **JIS K 5600-8-2** shall apply. The slight rust generated in the part with scuff mark may be excluded.

b) After the test was performed for the duration of time given in table 16 in accordance with 13.1.2, no crack shall be visually found. No peeling shall be visually found, and generated by a tape test. Fading or chalking shall be as agreed between the purchaser and the supplier.

The test shall be performed in accordance with 1.1.5 specified in annex 1 of JIS K 5600-7-6.

For crack, classes from 2 to 5 given in table 1 of **JIS K 5600-8-4** shall not be found.

For peeling, Class 0 given in table 1 of JIS K 5600-8-5 shall be satisfied.

For chalking, evaluation shall be performed in accordance with 6.1 of JIS K 5600-8-6.

- c) After the test was performed in accordance with 13.1.3, no defects, except for slight blistering and rust, shall be found on the plane of test piece. For the limit of slight blistering, 2 (S2) of JIS K 5600-8-1 and JIS K 5600-8-2 shall apply. The slight rust generated in the part with scuff mark may be excluded. Furthermore, the test method and test duration may be as agreed between the purchaser and the supplier.
- 6 Physical properties of paint coating After being tested for items marked with a circle in table 4 in accordance with 13.2 and 13.3, sheet and coil shall, by visual inspection, show the results specified in table 4.

Table 4 Physical properties

Item	Structural (CGLC570)	Commercial (CGLCC), Drawing (CGLCD), Structural (CGLC400, CGLC440, CGLC490)	Physical properties	Item No. of test methods
Bending adhesion	_	0	No paint coating peel from the substrate on the outside of the bend not less than 7 mm from either side edge of the test piece	13.2.2
Paint coating hardness	0	0	No scratch marks allowed on the paint coating	13.2.3
Impact resistance			No paint coating shall peel from the substrate	13.2.4
Adhesion	0	_	No irregularities allowed on the tested portion	13.2.5

Remarks: Test items for sheet and coil for roofing, architectural siding and corrugation shall be in accordance with table 4.

- 7 Presentation of dimensions The dimensions of sheet and coil shall be expressed as follows:
- a) For the thickness of sheet and coil, the thickness of the base metal before plating is applied shall be regarded as the nominal thickness. The thickness after plating and coating are applied to the base metal shall be regarded as the product thickness.
- b) The dimensions of sheet shall be expressed in thickness, width and length in millimetres, respectively.
- c) The dimensions of coil shall be expressed in thickness and width in millimetres, respectively. When the mass of coil is expressed as theoretical mass, however, the length shall be given in metres.
- 8 Standard dimension The standard dimensions of sheet and coil shall be as specified below. However, the standard nominal thickness of corrugated sheet and the standard width and length prior to corrugation of corrugated sheet shall comply with annex 2 of JIS G 3321. Further, the standard length and width of corrugated sheet after corrugation shall comply with JIS G 3316.
- a) Standard nominal thickness The standard nominal thickness of flat sheet and coil shall be as given in table 5.

Table 5 Standard nominal thickness

													Unit	mm
0.25	0.27	0.30	0.35	0.40	0.50	0.60	0.80	1.0	1.2	1.4	1.6	1.8	2.0	2.3

b) Standard width and standard length The standard width of flat sheet and coil and the standard length of flat sheet shall be as given in table 6.

Table 6 Standard width and length

Unit: mm

Standard width	Standard length of sheet						
762	1 829	2 134	2 438	2 743	3 048	3 353	3 658
914	1 829	2 134	2 438	2 743	3 048	3 353	3 658
1 000	2 000						
1 219	2 438	3 048	3 658				

Remarks: As for coil, 610 mm shall also be regarded as the standard width.

9 Dimensional tolerances

- **9.1 Product thickness tolerances** Tolerances for the thickness of sheet and coil shall be as follows:
- a) Product thickness tolerances shall apply to the nominal thickness rounded to three decimal places plus the equivalent thickness of coating given in table 9.
- b) Product thickness tolerances shall be as given in tables 7 or 8.
- c) Thickness shall be measured at any point not less than 25 mm from a side edge.

Table 7 Product thickness tolerances (applicable for the symbols of paint coating durability "10", "11", "20" and "21")

Unit: mm

Nominal thickness	Width			
	Under 630	630 or over to and excl. 1 000	1 000 or over to and excl. 1 250	
(Under 0.25)	+0.08	+0.08	+0.08	
	-0.04	-0.04	-0.04	
0.25 or over to and excl. 0.40	+0.09	+0.09	+0.09	
	-0.05	-0.05	-0.05	
0.40 or over to and excl. 0.60	+0.10	+0.10	+0.10	
	-0.06	-0.06	-0.06	
0.60 or over to and excl. 0.80	+0.11	+0.11	+0.11	
	-0.07	-0.07	-0.07	
0.80 or over to and excl. 1.00	+0.11	+0.11	+0.12	
	-0.07	-0.07	-0.08	
1.00 or over to and excl. 1.25	+0.12	+0.12	+0.13	
	-0.08	-0.08	-0.09	
1.25 or over to and excl. 1.60	+0.13	+0.14	+0.15	
	-0.09	-0.10	-0.11	
1.60 or over to and excl. 2.00	+0.15	+0.16	+0.17	
	-0.11	-0.12	-0.13	
2.00 or over to and excl. 2.30	+0.17	+0.18	+0.19	
	-0.13	-0.14	-0.15	

Remarks: Values in parentheses are shown for reference.

Table 8 Product thickness tolerances (applicable for those other than the symbols of paint coating durability "10", "11", "20" and "21")

Unit: mm

Nominal thickness		Width	
Nominal thickness		WIGGI	
	Under 630	630 or over to and excl. 1 000	1 000 or over to and excl. 1 250
(Under 0.25)	$^{+0.10}_{-0.02}$	+0.10 -0.02	+0.10 -0.02
0.25 or over to and excl. 0.40	+0.11	+0.11	+0.11
	-0.03	-0.03	-0.03
0.40 or over to and excl. 0.60	+0.12	+0.12	+0.12
	-0.04	-0.04	-0.04
0.60 or over to and excl. 0.80	+0.13	+0.13	+0.13
	-0.05	-0.05	-0.05
0.80 or over to and excl. 1.00	+0.13	+0.13	+0.14
	-0.05	-0.05	-0.06
1.00 or over to and excl. 1.25	+0.14	+0.14	+0.15
	-0.06	-0.06	-0.07
1.25 or over to and excl. 1.60	+0.15	+0.16	+0.17
	-0.07	-0.08	-0.09
1.60 or over to and excl. 2.00	+0.17	+0.18	+0.19
	-0.09	-0.10	-0.11
2.00 or over to and excl. 2.30	+0.19	+0.20	+0.21
	-0.11	-0.12	-0.13

Remarks: Values in parentheses are shown for reference.

Table 9 Equivalent coating thickness

Unit: mm

Coating mass symbol	(AZ70)	AZ90	AZ120	AZ150	AZ170	(AZ185)	(AZ200)
Equivalent coating thickness	(0.026)	0.033	0.043	0.054	0.062	(0.067)	(0.072)

Remarks: Thicknesses in parentheses may be applied if agreed between the purchaser and the supplier.

9.2 Width and length tolerances Tolerances for the width and length of sheet and coil shall be as given in table 10. However, tolerances for the width of corrugated sheets after corrugation shall conform to JIS G 3316.

Table 10 Width and length tolerances

Unit: mm

Division	Tolerances
Width	+7 0
Length	+15 0

10 Shapes

10.1 Camber Maximum camber for flat sheet and coil shall be as given in table 11.

Table 11 Maximum camber

10.2 Out-of-square Out-of-square for flat sheet shall be expressed as $\frac{l}{b} \times 100$ (%) in figure 1 and shall not exceed 1 %.

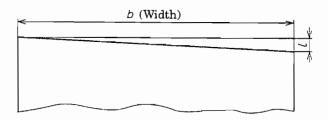


Figure 1 Out-of-square for flat sheet

10.3 Flatness Flatness for flat sheet shall be as given in table 12. Flatness shall be measured with a sheet lying under its own weight on a flat surface, and the value of flatness shall be obtained by subtracting the sheet thickness from the maximum deviation from the flat horizontal surface. The value thus obtained shall apply to the upper surface of the sheet.

Table 12 Flatness

Unit: mm

Width	Туре				
	Bow	Edge wave (2)	Centre buckle (2)		
Under 1 000	12 max.	8 max.	6 max.		
1 000 or over to and excl. 1 250	15 max.	9 max.	8 max.		

Notes (2) It refers to the state that a wave appears in the edge (the edge in the width direction) of the sheet and coil.

(3) It refers to the state that a wave appears in the central part of the sheet and coil.

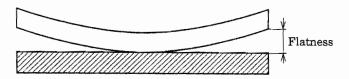


Figure 2 Measurement of flatness

11 Mass and tolerances

- 11.1 Mass of sheet The mass of sheet shall normally be given in theoretical mass in kilogrammes.
- 11.2 Mass of coil The mass of coil shall be given in either actual or theoretical mass in kilogrammes.
- 11.3 Calculation method of mass The calculation method of the mass of sheet and coil shall comply with table 13 according to nominal dimensions and coating mass.

Table 13 Calculation method of mass

	Calculation order		Calculation method	Number of figures in resultant values
Bas	ic mass of base metal kg	mm·m²	7.85 (1 mm thickness, 1 m ² area)	
Uni	t mass of base metal	kg/m²	Basic mass (kg/mm·m²) × nominal thickness (mm)	Rounded off to 4 significant figures
Uni	it mass after coating	kg/m²	Unit mass of base metal (kg/m²) + coating mass constant (given in table 14)	Rounded off to 4 significant figures
	Area of sheet	m²	Width (mm) × length (mm) × 10 ⁻⁶	Rounded off to 4 significant figures
Sheet	Mass of a single sheet	kg	Unit mass after coating $(kg/m^2) \times$ area (m^2)	Rounded off to 3 significant figures
Sh	Mass of a single bundle	kg	Mass of a single sheet (kg) × number of sheets in a single bundle of the same dimensions	Rounded off to integral number of kg
	Total mass	kg	Total mass of each bundle (kg)	Integral number of kg
	Unit mass of coil kg		Unit mass after coating $(kg/m^2) \times width (mm) \times 10^{-3}$	Rounded off to 3 significant figures
Coil	Mass of a single coil kg		Unit mass of coil (kg/m) × length (m)	Rounded off to integral number of kg
	Total mass	kg	Total mass of each coil (kg)	Integral number of kg

- Remarks 1 The number of sheets, when the bundle mass is specified, shall be obtained by dividing the specified mass by the mass of a single sheet of the same shape, dimensions and coating mass, to be rounded off to an integral number.
 - 2 The width dimensions to be used for calculating the area of corrugated sheet shall be that prior to corrugation.
 - 3 The method of rounding off numerical values shall be in accordance with rule A of JIS Z 8401.

Table 14 Coating mass constants for mass calculation

Coating mass symbol	(AZ70)	AZ90	AZ120	AZ150	AZ170	(AZ185)	(AZ200)
Coating mass constant	(0.095)	0.120	0.160	0.200	0.230	(0.250)	(0.270)

11.4 Tolerances for theoretical mass of sheet When designated by the purchaser, tolerances for the theoretical mass of sheet, which are expressed as the percentage obtained by dividing the difference between the theoretical mass and the actual mass by the theoretical mass, shall be as given in table 15.

Table 15 Mass tolerances

Theoretical mass of a single lot	Tolerance	Remarks
Under 600	±10	Calculation shall be made regarding
600 or over to and excl. 2 000	± 7.5	a lot of sheets of the same quality, shape, dimensions and coating mass.
2 000 or over	± 5	

12 Appearance Sheet and coil shall be free from defects detrimental to practical use, except the case of coil, which may contain some irregular portions such as welds and colour shading.

13 Tests

- 13.1 Durability test for paint coatings The durability test for paint coatings shall be in accordance with table 16.
- 13.1.1 Salt spray test The salt spray test method shall be in accordance with JIS Z 2371, and the solution of which pH is adjusted in accordance with 7.2.1 of JIS Z 2371 shall be used.
- 13.1.2 Dew-cycle type accelerated weathering test The dew-cycle type accelerated weathering test, if conducted, shall comply with the dew-cycle type weathering test specified in (1) of 7.5 of JIS Z 9117.
- 13.1.3 Cycle corrosion test The cycle corrosion test shall be performed in accordance with the method of either of clause 8 of JIS H 8502 or table 4 of 7.12 of JIS K 5621.

In addition, this test shall be performed in accordance with the agreement between the purchaser and the supplier, and the evaluation criteria (setting of reference values and characteristics) may be as agreed between the purchaser and the supplier.

Table 1	6 D	urabi	lity	test
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Classification	Durability test		
of durability	Duration of Duration of dew-cycle type salt splay test accelerated weathering test		Duration of cycle corrosion test
Class 1	200 h	Not applied	The numerical value is not specified.
Class 2	500 h	Not applied	The numerical value is not specified.
Class 3	2 000 h	1 500 h	The numerical value is not specified.

- Remarks 1 For the sheet and coil for roofing for which the quality is guaranteed for one side only, the duration of the salt spray test for the reverse side shall be 150 h.
 - 2 For Class 3 in the classification of paint coating durability, the symbol of coating mass AZ150 or more shall be applied to the base metal for coating.

13.2 Tests for physical properties of paint coating

13.2.1 Sampling of test specimen For test specimens for the bend, pencil hardness, impact and cross-cut adhesive tests, one test specimen shall be taken from every 50 t or fraction thereof of a lot of the products of the same quality, dimensions, coating mass and colour.

For corrugated sheets, the test specimen shall be taken from flat sheet prior to corrugation.

13.2.2 Bend test The bend test shall be as follows:

- a) The test piece shall have a width of 75 mm to 125 mm and a suitable length for the test. Unless otherwise specified, one test piece shall be taken from each test specimen parallel to the rolling direction of the base metal.
- b) By referring to the internal spacing of bend given in table 17, the test piece shall, as a rule, be bent manually with a vise at right angles to the longitudinal direction of the test piece, as shown in figure 3. When a hand vise is not available, other suitable means of testing may be adopted.

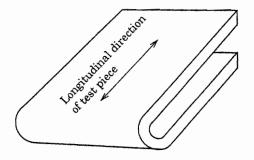


Figure 3 Direction of bend test

Table 17 Internal spacing of bend

Classified symbol	Bend angle	Nominal thickness mm	Internal spacing of bend
CGLCC	180°	0.40 or under	2 sheets of nominal thickness
		Over 0.40 up to and incl. 2.3	3 sheets of nominal thickness
CGLCD	180°	0.40 or over up to and incl. 1.6	2 sheets of nominal thickness
CGLC400	180°	1.6 or under	3 sheets of nominal thickness
CGLC440	180°	0.40 or under	4 sheets of nominal thickness
CGLC490		Over 0.40 up to and incl. 1.6	5 sheets of nominal thickness
CGLC570	_	_	_

- Remarks 1 The bend test shall be applied to the coating mass symbol AZ150 or lighter coatings, and the internal spacing of bend for AZ170, (AZ185) and (AZ200) shall be as agreed upon between the purchaser and the supplier.
 - 2 For sheet and coil for roofing, architectural siding and corrugation, table 17 shall apply.

13.2.3 Pencil hardness test The pencil hardness test shall be as follows:

a) A pencil equal or superior to the ordinary grade specified in JIS S 6006 and having the hardness symbols given in table 18 shall be used. However, for commercial and drawing qualities, a pencil having other hardness symbols than those specified above may be used, upon agreement between the purchaser and the supplier.

Table 18 Symbol of pencil hardness

Durability classification	Hardness symbol	
Class 1	Н	
Class 2	Н	
Class 3	F	

- b) The pencil shall properly be sharpened to expose about 3 mm of lead. While being held at right angles to the abrasive paper of No. P400 or finer as specified in **JIS R 6252** which has been laid on a hard and flat surface, the point of the lead shall be made to gently draw a continuous circle and thus be ground down so as to obtain a flat surface with sharp edges at the top. The tip of the lead shall be ground flat before reuse for each test.
- c) While the prepared pencil is being held at about 45 degrees to the surface of the test specimen, straight lines shall be drawn with the pencil in the direction shown in figure 4, with the load being applied of about 10 N. The lines drawn shall be not less than 20 mm in length and shall be three or more in number.

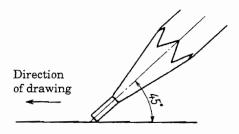


Figure 4 Test method

13.2.4 Impact test The impact test shall be as follows:

- a) A weight shall be dropped onto a test face from the top of an impact tester as shown in figure 5.
- b) The mass of the weight shall be 500 g \pm 1 g, and the radius of the impact point shall be 6.35 mm \pm 0.03 mm.
- c) The weight shall be dropped from a height of 500 mm above the test piece.

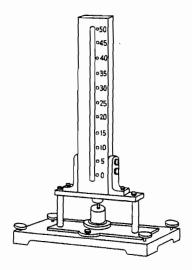


Figure 5 Du Pont impact-deformation tester

13.2.5 Cross-cut adhesive test The cross-cut adhesive test shall be as follows:

- a) Straight lines shall be scored on the surface of a test piece using a safety razor blade or other pointed objects so as to reach the surface of the metal coating through the paint coating and to form squares.
- b) Eleven straight lines shall be scored crosswise at right angles, at intervals of 1 mm.

13.3 Cautions for testing The tests require the following cautions:

a) Since the durability and physical properties of sheet and coil are affected by environmental conditions and by paint coating flaws (flaws incurred in handling, hair cracks on processed surfaces, etc.), the tests shall be conducted on flat sheets with normal surfaces. b) The temperature for test on physical properties shall be the normal temperature (5 °C to 35 °C) specified in **JIS Z 8703**.

14 Inspection

- **14.1 Inspection** The inspection shall be as follows:
- a) The durability test is a performance test, and the test results shall comply with the requirements of clause 5.
- b) The physical properties of paint coating shall comply with the requirements of clause 6.
- c) Dimensions shall comply with the requirements of clause 9.
- d) Shapes shall comply with the requirements of clause 10.
- e) Mass shall comply with the requirements of clause 11.
- f) Appearance shall comply with the requirements of clause 12.
- 14.2 Reinspection When a part of test results for physical properties fails to comply with the requirements, a retest on the relevant items may be carried out in accordance with 9.8 of JIS G 0404, to determine whether it is acceptable or not.

15 Markings

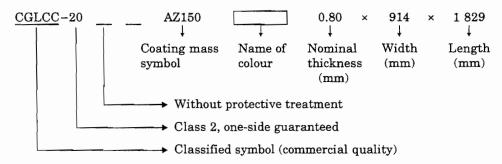
- 15.1 Package marking For each package or bundle of the sheet and coil that have passed inspection, the following items shall be legibly marked by a suitable means.
- a) Classified symbol (including shape symbol for corrugation for corrugated sheets)
- b) Coating mass symbol
- c) Name of colour
- d) Dimensions
- e) Number of sheets or mass
- f) Identification number of product
- g) Manufacturer's name or identifying brand
- 15.2 Reverse side marking For the sheet and coil that have passed inspection and the quality of which is guaranteed for one side, the reverse side markings shall be as shown below. For both-side guaranteed, the sheet and coil shall be marked only when so specified.

The markings shall be made by a suitable means for each sheet or coil (at specific intervals for roofing).

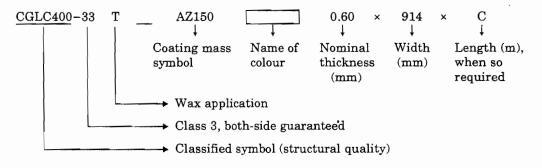
- a) For roofing The following items shall be marked:
 - 1) Nominal thickness

- 2) Classified symbol (including shape symbol for corrugation for corrugated sheets.)
- 3) The Japanese word "ヤネ" (YANE) in katakana form, which means roofing
- 4) Manufacturer's name or identifying brand
- b) For other than roofing The following items shall be marked, except that, upon agreement between the purchaser and the supplier, these markings may be omitted:
 - 1) Nominal thickness
 - 2) Classified symbol (including shape symbol for corrugation for corrugated sheets.)
 - 3) Manufacturer's name or identifying brand
- c) **Method of designation** Sheet and coil shall be designated as shown in the following examples:

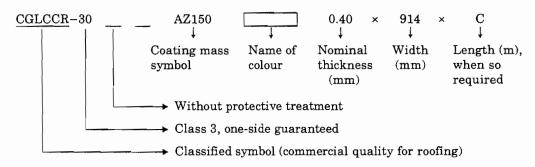
Example 1 For sheet



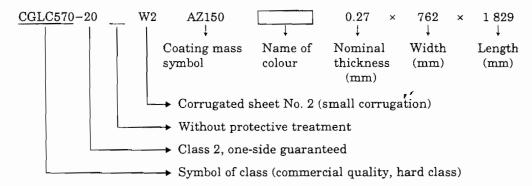
Example 2 For coil



Example 3 For roofing (coil)



Example 4 For corrugated sheet using commercial, hard quality



- 16 Storage, transport and fabrication Cautionary measures for storage, transport and fabrication shall be as follows:
- a) For the storage of sheet and coil, selection of a well-ventilated indoor place virtually free from dust and moisture should be specified. Mixed loading with corrosive substances such as chemicals should be avoided.
- b) Every precaution should be taken against paint coating damage and contact with water during transport and transfer.
- c) The formability of paint coatings deteriorates with the decrease of temperature. When sheet and coil stored in a low-temperature warehouse are to be fabricated, the temperature of the material should be elevated to normal temperature.
- 17 Items to be confirmed at the time of order The parties concerned with delivery should include the following information in an inquiry sheet and an order sheet in order to specify the matter according to this Standard appropriately.
- a) Class of durability of paint coatings and symbol (see table 1)
- b) Class and symbol by application (see table 2)
- c) With or without surface protective treatment (see table 3 in the case of with surface protective treatment)
- d) Symbol of coating mass
- e) Product name
- f) Colour name or colour symbol
- g) Dimensions (see table 5 for standard nominal thickness, see table 6 for standard width and length)
- h) Winding direction (surface internal winding, external winding) in the case of a coil
- i) Maximum mass and minimum mass of one bundle or one coil of a product
- i) Total mass ordered
- k) Internal diameter or external diameter in the case of a coil
- 1) Application, processing method, etc. when possible

18 Report When there is a request of the purchaser beforehand, the manufacturer shall submit the inspection document to the purchaser. In this case, the report shall comply with the requirements of clause 13 in JIS G 0404. Unless otherwise especially specified, the specification of inspection document shall be symbol 2.3 or 3.1.B in table 1 of JIS G 0415.

Related standards:

JIS G 3312 Prepainted hot-dip zinc-coated steel sheets and coils

JIS B 3318 Prepainted hot-dip zinc—5 % aluminium alloy-coated steel sheets and coils