

JAPANESE INDUSTRIAL STANDARD

Translated and Published by Japanese Standards Association

JIS G 3317: 2022

(JISF)

Hot-dip zinc-5 % aluminium alloy-coated steel sheet and strip

ICS 77.140.50

Reference number: JIS G 3317: 2022 (E)

G 3317: 2022

Date of Establishment: 1990-10-01

Date of Revision: 2022-12-20

Date of Public Notice in Official Gazette: 2022-12-20

Developed by: The Japan Iron and Steel Federation

Investigated by: The Japan Iron and Steel Federation, Standardization

Center

JIS G 3317: 2022, First English edition published in 2023-04

Translated and published by: Japanese Standards Association Mita MT Building, 3-13-12, Mita, Minato-ku, Tokyo, 108-0073 JAPAN

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

© JSA 2023

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 HN

Contents

	I	age
Intro	duction ······	1
1	Scope ·····	
	Normative references ······	
2		
3	Terms and definitions	
4	Symbols of grades and applicable nominal thicknesses ······	2
5	Chemical composition ·····	3
6	Coating ·····	
6.1	Plating bath composition ·····	4
6.2	Coating mass	
6.3	Skin pass treatment · · · · · · · · · · · · · · · · · · ·	
6.4		
7	Chemical conversion ······	
8	Oiling ····	7
9	Mechanical properties · · · · · · · · · · · · · · · · · · ·	8
9.1	Applicable mechanical properties ······	8
9.2	Bendability	
9.3	Yield point or proof stress, tensile strength and elongation ·····	
10	Dimensions ·····	
10.1	Expression of dimensions · · · · · · · · · · · · · · · · · · ·	
10.2	Standard dimensions	
10.3		
11	Shapes ·····	
11.1	Camber	
11.2 11.3	Squareness · · · · · · · · · · · · · · · · · ·	
11.3	Pitches and depths of corrugation, and direction of corrugation at both	.0
11,4	side edges of corrugated sheets ···································	7
12	Mass	7
12.1	Mass of sheet or corrugated sheet ······	
12.2	Mass of coil ·····	7
12.3	Calculation of mass ·····	
12.4	Tolerances on theoretical mass of sheet and corrugated sheet ·······	.8
13	Appearance ·····	9

G 3317: 2022

14		19		
14.1	Chemical analysis · · · · · · 19			
14.2	Plating bath composition analysis · · · · · · 19			
14.3				
14.4	Mechanical tests	21		
15	Inspection and reinspection · · · · · · 22			
15.1	Inspection ······22			
15.2	Reinspection ·······················22			
16	Marking			
17	Information to be supplied by the purchaser ·······················24			
18	Report			
Annex	x JA (normative)	Symbols of grades, applicable nominal thicknesses, symbols for coating masses and standard dimensions of corrugated sheets		
Annex	x JB (normative)	Symbols of grades, applicable nominal thicknesses and symbols for coating masses of sheets and coils used for roofing/architectural siding		
Annex	x JC (normative)	Off-line coating mass determination method of hot-dip zinc-5 % aluminium alloy-coated steel sheet and strip by X-ray fluorescence analysis		
Annex	x JD (normative)	Online coating mass determination method of hot-dip zinc-5 % aluminium alloy-coated steel strip by X-ray fluorescence analysis		
Annex	x JE (normative)	Coating mass determination by gravimetric method $\cdots 39$		
Annex	x JF (informative)	Comparison table between JIS and corresponding International Standard41		

Foreword

This Japanese Industrial Standard has been revised by the Minister of Economy, Trade and Industry based on the provision of Article 14, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act in response to a proposal for revision of Japanese Industrial Standard with a draft being attached, submitted by The Japan Iron and Steel Federation (JISF), an accredited standards development organization. This edition replaces the previous edition (JIS G 3317: 2019), which has been technically revised.

However, **JIS G 3317**: 2019 may be applied in the **JIS** mark certification based on the relevant provisions of Article 30, paragraph (1), etc. of the Industrial Standardization Act until 19 December 2023.

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

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, published patent application or utility model rights. The relevant Minister is not responsible for identifying any of such patent rights, published patent application or utility model rights.

Blank

Hot-dip zinc-5 % aluminium alloy-coated steel sheet and strip

JIS G 3317: 2022

Introduction

This Japanese Industrial Standard has been prepared based on **ISO 14788**: 2017, Edition 4, with some modifications of the technical contents.

Annex JA to Annex JE are unique to **JIS** and not given in the corresponding International Standard. The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex JF.

1 Scope

This Standard specifies requirements for hot-dip zinc-5 % aluminium alloy-coated steel sheets (hereafter referred to as sheets), hot-dip zinc-5 % aluminium alloy-coated steel strips (hereafter referred to as coils), and corrugated steel sheets manufactured by processing sheets into the shapes and dimensions specified in **JIS G 3316** (hereafter referred to as corrugated sheets).

NOTE 1 The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 14788: 2017 Steel sheet, zinc-5 % aluminium alloy-coated by the continuous hot-dip process, of commercial, drawing and structural qualities (MOD)

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

NOTE 2 A new standard specifying the requirements common to JIS G 3302, JIS G 3314, JIS G 3317, JIS G 3321 and JIS G 3323 is planned to be established at the next revision of this Standard (hereafter referred to as the new standard specifying common requirements).

2 Normative references

Part or all of the provisions of the following standards, 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 0201 Glossary of terms used in iron and steel (Heat treatment)

JIS G 0202 Glossary of terms used in iron and steel (Testing)

JIS G 0203 Glossary of terms used in iron and steel (Products and quality)

JIS G 0320 Standard test method for heat analysis of steel products