

JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS G 4321 : 2022

(JSSC/JSA)

Stainless steel for building structure

ICS 77.140.20

Reference number : JIS G 4321 : 2022 (E)

Date of Establishment: 2000-06-20

Date of Revision: 2022-03-22

Date of Public Notice in Official Gazette: 2022-03-22

Investigated by: Japanese Industrial Standards Committee

Standards Board for ISO area

Technical Committee on Metal and Inorganic

Materials

JIS G 4321 : 2022, First English edition published in 2022-11

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 2022

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

		Page
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4	Symbols of grades	2
5	Manufacturing method	2
6	Chemical composition	3
6.1	Heat analysis values	3
6.2	Product analysis values	3
7	Mechanical properties	3
7.1	0.1 % proof stress, tensile strength, yield ratio and elongation	3
7.2	Flattening resistance test	4
8	Corrosion resistance	4
9	Surface finish	5
10	Profiles and dimensions, and tolerances thereof	5
10.1	Section profiles	5
10.2	Standard lengths	5
10.3	Standard dimensions	5
10.4	Tolerances on dimension, profiles and lengths	5
11	Appearance	10
12	Mass	10
13	Tests	11
13.1	Chemical analysis	11
13.2	Mechanical tests	12
13.3	Corrosion test	13
14	Inspection	13
15	Marking	13
16	Report	14
	Annex A (informative) Section profiles, dimensions, unit mass and sectional characteristics of steels	15

Foreword

This Japanese Industrial Standard has been 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 Japanese Society of Steel Construction (JSSC)/Japanese Standards Association (JSA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (**JIS G 4321 : 2000**), which has been technically revised.

However, **JIS G 4321 : 2000** 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 21 March 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 and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, published patent application or utility model rights.

Stainless steel for building structure

1 Scope

This Japanese Industrial Standard specifies the requirements for stainless steels used for building structures (hereafter referred to as steels).

- a) Hot-formed H sections
- b) Hot-formed equal-leg angles
- c) Hot-formed U sections
- d) Cold-formed equal-leg angles
- e) Hot-rolled steel bars and cold-finished steel bars (round bars, square bars, hexagonal bars and flat bars)
- f) Circular steel tubes and centrifugally cast steel tubes
- g) Square and rectangular tubes
- h) Hot-rolled steel sheets and strips
- i) Cold-rolled steel sheets and strips

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*
- JIS G 0321 *Product analysis and its tolerance for wrought steel*
- JIS G 0404 *Steel and steel products — General technical delivery requirements*
- JIS G 0415 *Steel and steel products — Inspection documents*
- JIS G 0571 *Method of oxalic acid etching test for stainless steels*
- JIS G 0572 *Method of ferric sulfate-sulfuric acid test for stainless steel*
- JIS G 0573 *Method of 65 per cent nitric acid test for stainless steels*
- JIS G 0575 *Method of copper sulfate-sulfuric acid test for stainless steels*
- JIS G 3446 *Stainless steel tubes for machine and structural purposes*
- JIS G 3466 *Carbon steel square and rectangular tubes for general structure*