

JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS G 3129 : 2018

(JISF)

**High tensile strength steels for
tower structure**

ICS 77.140.20

Reference number : **JIS G 3129 : 2018 (E)**

Date of Establishment: 1988-10-01

Date of Revision: 2018-03-20

Date of Public Notice in Official Gazette: 2018-03-20

Investigated by: Japanese Industrial Standards Committee

Standards Board for ISO area

Technical Committee on Metal and Inorganic

Materials

JIS G 3129:2018, First English edition published in 2018-09

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 2018

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

AT

Contents

		Page
1	Scope	1
2	Normative reference	1
3	Symbol of grade, shape, and applicable thickness	1
4	Chemical composition	2
5	Carbon equivalent	2
6	Crack sensitivity equivalent of hot-dipped zinc-coating	2
7	Heat treatment	2
7.1	Heat treatment of steel plates	2
7.2	Symbols of heat treatment	3
8	Mechanical properties	3
8.1	Yield point or proof stress, tensile strength and elongation	3
8.2	Charpy absorbed energy	3
9	Shape, dimensions, mass and tolerances	4
10	Appearance	4
11	Tests	4
11.1	Chemical analysis	4
11.2	Mechanical tests	4
12	Inspection	5
13	Reinspection	5
14	Marking	6
15	Report	6

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 3129**:2005 is replaced with this Standard.

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.

High tensile strength steels for tower structure

1 Scope

This Japanese Industrial Standard specifies requirements for hot-rolled steel products used mainly for transmission steel towers (hereafter referred to as steel products).

2 Normative reference

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

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

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

JIS G 0416 *Steel and steel products—Location and preparation of samples and test pieces for mechanical testing*

JIS G 3192 *Dimensions, mass and permissible variations of hot rolled steel sections*

JIS G 3193 *Dimensions, mass and permissible variations of hot rolled steel plates, sheets and strips*

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

JIS Z 2242 *Method for Charpy pendulum impact test of metallic materials*

3 Symbol of grade, shape, and applicable thickness

Steel products are classified into two grades. Their symbols of grade, and shapes and applicable thicknesses are shown in Table 1.

Table 1 Symbols of grade, shapes and applicable thicknesses

Symbol of grade	Shape	Applicable thickness
SH590P	Steel plate	6 mm or over up to and incl. 25 mm
SH590S	Angle	35 mm or under

4 Chemical composition

When tested in accordance with 11.1, the steel products shall satisfy the limit values of heat analysis given in Table 2.