

JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS G 0416 : 2023

(JISF)

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

ICS 77.040.10 ; 77.080.20

Reference number : JIS G 0416 : 2023 (E)

PROTECTED BY COPYRIGHT

18 S

G 0416 : 2023

Date of Establishment: 1999-01-20

Date of Revision: 2023-12-20

Date of Public Notice in Official Gazette: 2023-12-20

Developed by: The Japan Iron and Steel Federation

Investigated by: The Japan Iron and Steel Federation, Standardization
Center

JIS G 0416 : 2023, First English edition published in 2024-03

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 2024

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

PROTECTED BY COPYRIGHT

Contents

	Page
Introduction	1
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 General requirements	4
4.1 Representative testing	4
4.2 Identification of sample products, samples, rough specimens and test pieces	4
5 Preparation of samples and selection of test pieces	5
5.1 Selection and dimensions of samples and location of samples and test pieces	5
5.2 Direction of axis of test pieces	5
5.3 Condition and separation of samples	5
6 Preparation of test pieces	6
6.1 Cutting and machining	6
6.2 Class B heat treatment	6
Annex A (normative) Location of samples and test pieces	7
Annex JA (informative) Testing in the reference condition	22
Annex JB (informative) Comparison table between JIS and corresponding International Standard	23

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 0416** : 2022), which has been technically revised.

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.

Steel and steel products — Location and preparation of samples and test pieces for mechanical testing

Introduction

This Japanese Industrial Standard has been prepared based on **ISO 377 : 2017**, Edition 4, with some modifications of the technical contents.

Annex JA is 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 JB.

1 Scope

This Standard specifies requirements for the identification, location and preparation of samples and test pieces intended for mechanical tests on steel sections, bars, rod, plates (including strips and flat bars) and tubular products or semi-finished products as defined in **JIS G 0203**.

Where the requirements of the order or product standard differ from those given in this Standard, then the requirements of the order or product standard normally apply.

NOTE 1 This Standard can be applied to other metallic products than stated above.

NOTE 2 Applying requirements of the order when they differ from those of the product standard (e.g., Japanese Industrial Standard) may make it impossible for the product to maintain its conformity to the product standard.

NOTE 3 The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 377 : 2017 *Steel and steel products — Location and preparation of samples and test pieces for mechanical testing* (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**.

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)*