

JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS G 1213 : 2001

**Iron and steel—
Methods for determination
of manganese content**

ICS 77.080.01

Descriptors : iron, ferrous metals, ferrous alloys, manganese, determination of content,
chemical analysis and testing

Reference number : JIS G 1213 : 2001 (E)

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 in accordance with the Industrial Standardization Law. Consequently **JIS G 1213 : 1981** is replaced with **JIS G 1213 : 2001**.

Date of Establishment: 1953-03-28

Date of Revision: 2001-04-20

Date of Public Notice in Official Gazette: 2001-04-20

Investigated by: Japanese Industrial Standards Committee
Divisional Council on Iron and Steel

JIS G 1213:2001, First English edition published in 2001-11

Translated and published by: Japanese Standards Association
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

In the event of any doubts arising as to the contents,
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Printed in Japan

Iron and steel— Methods for determination of manganese content

1 Scope This Japanese Industrial Standard specifies the methods for determination of manganese in iron and steel.

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS G 1201 *General rules for chemical analysis of iron and steel*

JIS K 8001 *General rule for test methods of reagents*

JIS K 8005 *Reference materials for volumetric analysis*

JIS Z 8402-6 *Accuracy (trueness and precision) of measurement methods and results—Part 6 : Use in practice of accuracy values*

3 General matters General matters common to the determination methods shall be given in **JIS G 1201**.

4 Classification of determination methods The method for determination of manganese shall conform to either of the following:

- a) **Ammonium peroxodisulfate oxidative sodium oxalate/potassium permanganate back titration method** This method is applied to the sample of $\geq 0.1\%$ (*m/m*) and $\leq 30\%$ (*m/m*) in manganese content, and the determination method shall be as given in Annex 1 (normative).
- b) **Permanganic acid absorptiometry** This method is applied to the sample of $\geq 0.01\%$ (*m/m*) and $\leq 20\%$ (*m/m*) in manganese content, and the determination method shall be as given in Annex 2 (normative).