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(JISF)

**Iron and steel—Atomic absorption
spectrometric method—Part 14:
Determination of calcium—Flame
atomization after decomposition
with acids**

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In the event of any doubts arising as to the contents,
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Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal for establishment 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.

Consequently, **JIS G 1257:2000** has been withdrawn and partially replaced with this Standard.

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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.

JIS G 1257 series consists of the following 32 parts under the general title “*Iron and steel—Atomic absorption spectrometric method*”:

JIS G 1257-0 *Part 0: General rules*

JIS G 1257-1 *Part 1: Determination of manganese—Flame atomization after decomposition with acids*

JIS G 1257-2 *Part 2: Determination of phosphorus—Flame atomization indirect method after extraction of molybdophosphate*

JIS G 1257-3 *Part 3: Determination of nickel—Flame atomization after decomposition with acids*

JIS G 1257-4 *Part 4: Determination of chromium—Flame atomization after decomposition with acids*

JIS G 1257-5 *Part 5: Determination of molybdenum—Flame atomization after decomposition with acids*

JIS G 1257-6 *Part 6: Determination of copper—Flame atomization after decomposition with acids*

JIS G 1257-7 *Part 7: Determination of vanadium—Flame atomization after decomposition with acids*

JIS G 1257-8 *Part 8: Determination of cobalt—Flame atomization after decomposition with acids*

JIS G 1257-9 *Part 9: Determination of titanium—Flame atomization after decomposition with acids*

JIS G 1257-10-1 *Part 10: Determination of aluminium—Section 1: Flame atomization after decomposition with acids*

JIS G 1257-10-2 *Part 10: Determination of aluminium—Section 2: Determination of acid-soluble aluminium*

- JIS G 1257-10-3 *Part 10: Determination of aluminium—Section 3: Flame atomization after separation of iron*
- JIS G 1257-10-4 *Part 10: Determination of aluminium—Section 4: Electrothermal atomization*
- JIS G 1257-11-1 *Part 11: Determination of tin—Section 1: Flame atomization after extraction of iodide*
- JIS G 1257-11-2 *Part 11: Determination of tin—Section 2: Electrothermal atomization*
- JIS G 1257-12-1 *Part 12: Determination of lead—Section 1: Flame atomization after decomposition with acids*
- JIS G 1257-12-2 *Part 12: Determination of lead—Section 2: Flame atomization after extraction of iodide*
- JIS G 1257-12-3 *Part 12: Determination of lead—Section 3: Electrothermal atomization*
- JIS G 1257-13 *Part 13: Determination of magnesium—Flame atomization after decomposition with acids*
- JIS G 1257-14 *Part 14: Determination of calcium—Flame atomization after decomposition with acids*
- JIS G 1257-15-1 *Part 15: Determination of zinc—Section 1: Flame atomization after decomposition with acids*
- JIS G 1257-15-2 *Part 15: Determination of zinc—Section 2: Flame atomization after extraction of tetra-hexylammonium iodide-trioctylamine complex*
- JIS G 1257-16-1 *Part 16: Determination of bismuth—Section 1: Flame atomization after extraction of iodide*
- JIS G 1257-16-2 *Part 16: Determination of bismuth—Section 2: Electrothermal atomization*
- JIS G 1257-17-1 *Part 17: Determination of antimony—Section 1: Flame atomization after extraction of iodide*
- JIS G 1257-17-2 *Part 17: Determination of antimony—Section 2: Electrothermal atomization*
- JIS G 1257-18-1 *Part 18: Determination of tellurium—Section 1: Flame atomization after extraction of iodide*
- JIS G 1257-18-2 *Part 18: Determination of tellurium—Section 2: Electrothermal atomization*
- JIS G 1257-19-1 *Part 19: Determination of arsenic—Section 1: Electrothermal atomization*
- JIS G 1257-19-2 *Part 19: Determination of arsenic—Section 2: Hydride generation method (to be established)*
- JIS G 1257-20 *Part 20: Determination of selenium—Electrothermal atomization*

Iron and steel—Atomic absorption spectrometric method—Part 14: Determination of calcium—Flame atomization after decomposition with acids

Introduction

This Japanese Industrial Standard has been prepared based on the first edition of **ISO 10697-2** published in 1994, which was the International Standard identical in contents to Annex 30 (normative) in Amendment 1:1999 to **JIS G 1257**, by incorporating the contents of Annex 21 (normative) of **JIS G 1257:1994**, and modifying the technical contents of the said International Standard for consistency with other standards in the **JIS G 1257** standard series.

The portions with sidelines or dotted underlines are the matters in which the contents of the original International Standard have been modified. A list of modifications with the explanations is given in Annex JA.

1 Scope

This Standard specifies an atomic absorption spectrometric method for the determination of the calcium content in iron and steel. The method is applicable to calcium contents (mass fraction) of 0.000 5 % or over up to and including 0.010 %

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

ISO 10697-2:1994 *Steel—Determination of calcium content by flame atomic absorption spectrometry—Part 2: Determination of total calcium content* (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

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) listed below shall be applied.

JIS G 1257-0 *Iron and steel—Atomic absorption spectrometric method—Part 0: General rules*

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