

JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS G 1258-0 : 2025

(JISF)

**Iron and steel — ICP atomic emission
spectrometric method — Part 0: General
rules**

ICS 77.080.01

Reference number: JIS G 1258-0 : 2025 (E)

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G 1258-0 : 2025

Date of Establishment: 2007-07-20

Date of Revision: 2025-12-22

Date of Public Notice in Official Gazette: 2025-12-22

Developed by: The Japan Iron and Steel Federation

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

JIS G 1258-0 : 2025, First English edition published in 2026-04

Translated and published by: Japanese Standards Association
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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 1258-0** : 2017), which has been technically revised.

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JIS G 1258 series consists of the following 9 parts under the general title *Iron and steel — ICP atomic emission spectrometric method* — :

Part 0: General rules

Part 1: Determination of various elements — Decomposition with acids and fusion with potassium disulfate

Part 2: Determination of various elements — Decomposition with phosphoric and sulfuric acids

Part 3: Determination of various elements — Decomposition with acids and fusion with sodium carbonate

Part 4: Determination of niobium content — Dissolution in phosphoric and sulfuric acids or Dissolution in acids and fusion with potassium disulfate

Part 5: Determination of boron content — Dissolution in phosphoric and sulfuric acids

Part 6: Determination of boron content — Dissolution in acids and fusion with sodium carbonate

Part 7: Determination of boron content — Distillation as trimethyl borate

Part 8: Determination of tungsten content — Decomposition with phosphoric and sulfuric acids

Iron and steel — ICP atomic emission spectrometric method — Part 0: General rules

1 Scope

This Japanese Industrial Standard specifies the scope of application for each part of the **JIS G 1258** series (hereinafter referred to as the standard series) that specifies ICP atomic emission spectroscopic methods for iron and steel, as well as general rules for the standard series.

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 1201 *Iron and steel — General rules for analytical methods*

JIS K 0050 *General rules for chemical analysis*

JIS Z 8461 *Linear calibration using reference materials*

JIS Z 8462-2 *Capability of detection — Part 2: Methodology in the linear calibration case*

JIS Z 9041-1 *Statistical interpretation of data — Part 1: Statistical presentation of data*

3 Terms and definitions

For the purpose of this Standard, the terms and definitions given in Clause 3 of **JIS G 1201** apply.

4 General rules

General rules for analyses not specified in this Standard shall be in accordance with **JIS G 1201**.

5 Scope of the standard series

5.1 Part 1: Determination of various elements — Decomposition with acids and fusion with potassium disulfate

Part 1 specifies the ICP atomic emission spectrometric method for determination of the contents of 16 components in steel specified in Table 1 using decomposition with acids and fusion with potassium disulfate. This method is applicable to the determination of each component within the ranges specified in Table 1. However, it is not applicable to steels

- with the iron content (mass fraction) below 92 %;
- with the content (mass fraction) of any one of the components above the upper limit of the determination range specified in Table 1;