



JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS G 1253 : 2002

(JISF)

**Iron and steel—Method for
spark discharge atomic emission
spectrometric analysis**

ICS 77.100; 77.140.01

Reference number : JIS G 1253 : 2002 (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, 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 1253 : 1995** is replaced with this Standard.

Date of Establishment: 1963-10-01

Date of Revision: 2002-01-20

Date of Public Notice in Official Gazette: 2002-01-21

Investigated by: Japanese Industrial Standards Committee
Standards Board
Technical Committee on Iron and Steel

JIS G 1253:2002, First English edition published in 2004-04

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,
the original JIS is to be the final authority.

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Printed in Japan

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Iron and steel—Method for spark discharge atomic emission spectrometric analysis

1 Scope This Japanese Industrial Standard specifies the method for atomic emission spectrometric analysis by spark discharge of iron and steel and shall be applicable to the quantitative determination of respective components shown in Table 1. However, the quantitative determination of nitrogen shall be applicable to only steel.

Remarks : The iron in this Standard means pig iron, cast iron and the like, and the steel means carbon steel, low alloy steel, high alloy steel and the like.

Table 1 Components to be applied and determination range

Component	Determination range % (m/m)		
Carbon	0.001	or over up to and incl.	5.5
Silicon	0.002	or over up to and incl.	6
Manganese	0.003	or over up to and incl.	30
Phosphorus	0.000 5	or over up to and incl.	1.0
Sulfur	0.000 2	or over up to and incl.	0.5
Nickel	0.002	or over up to and incl.	40
Chromium	0.002	or over up to and incl.	40
Molybdenum	0.001	or over up to and incl.	10
Copper	0.001	or over up to and incl.	6
Tungsten	0.01	or over up to and incl.	25
Vanadium	0.001	or over up to and incl.	6
Cobalt	0.001	or over up to and incl.	20
Titanium	0.000 5	or over up to and incl.	3
Aluminium	0.001	or over up to and incl.	5
Arsenic	0.001	or over up to and incl.	0.3
Tin	0.000 6	or over up to and incl.	0.3
Boron	0.000 05	or over up to and incl.	0.5
Nitrogen	0.001	or over up to and incl.	0.15
Lead	0.001	or over up to and incl.	0.5
Zirconium	0.001	or over up to and incl.	1
Niobium	0.001	or over up to and incl.	2
Magnesium	0.001	or over up to and incl.	0.2
Calcium	0.000 1	or over up to and incl.	0.01
Tantalum	0.02	or over up to and incl.	0.2
Antimony	0.008	or over up to and incl.	0.5
Selenium	0.003	or over up to and incl.	0.1
Tellurium	0.003	or over up to and incl.	0.1
Lanthanum	0.002	or over up to and incl.	0.05
Cerium	0.005	or over up to and incl.	0.05