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(JISF)

**Iron and steel — Determination of  
nitrogen — Part 2: Spectrophotometric  
methods after ammonium distillation  
separation**

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

This Japanese Industrial Standard has been established by the Minister of Economy, Trade and Industry based on the provision of Article 14, paragraph (1) of the Industrial Standardization Act in response to a proposal for establishment of Japanese Industrial Standard with a draft being attached, submitted by The Japan Iron and Steel Federation (JISF), an accredited standards development organization. This Standard partially replaces **JIS G 1228** : 2006, which has been withdrawn.

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**JIS G 1228** series consists of the following 3 parts under the general title *Iron and steel — Determination of nitrogen* :

*Part 1 : Amidosulfuric acid titrimetric method after ammonium distillation separation*

*Part 2 : Spectrophotometric methods after ammonium distillation separation*

*Part 3 : Thermal conductimetric method after fusion in a current of inert gas*

# Iron and steel — Determination of nitrogen — Part 2 : Spectrophotometric methods after ammonium distillation separation

## Introduction

This Japanese Industrial Standard has been prepared based on **ISO 4945** : 2018, Edition 2, with some modifications of the technical contents.

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 JA.

## 1 Scope

This Standard specifies spectrophotometric methods after ammonium distillation separation, among methods for the determination of nitrogen in steel and iron.

The methods are applicable to the determination of a nitrogen content (mass fraction) of 0.000 5 % or over up to and including 0.050 %.

However, the methods are not applicable to samples containing silicon nitrides. The indophenol blue method (9.3.3) is only applicable to the determination of nitrogen in steel.

NOTE 1... The determination range in **JIS G 1228** (all parts) is shown in Table 1.

**Table 1 Determination range in JIS G 1228 (all parts)**

| Standard No.        | Determination range [mass fraction (%)] |
|---------------------|---|
| <b>JIS G 1228-1</b> | 0.002 or over up to and incl. 0.5       |
| <b>JIS G 1228-2</b> | 0.000 5 or over up to and incl. 0.050   |
| <b>JIS G 1228-3</b> | 0.000 8 or over up to and incl. 0.5     |

NOTE 2 The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 4945 : 2018 *Steel — Determination of nitrogen — Spectrophotometric method* (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,