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JIS G 1223 : 1997

## Iron and steel—Methods for determination of titanium content

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ICS 77.080.01

**Descriptors** : iron, transition metals, steels, ferrous metals, ferrous alloys, titanium, refractory metals, determination of content, chemical analysis and testing

**Reference number** : JIS G 1223 : 1997 (E)

## Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of International Trade and Industry through deliberations at Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently, this revision supersedes JIS G 1223 : 1992.

In this revision, 4,4'-Diantipyrylmethane spectrophotometric method is harmonized with ISO 10280, and also the countermeasures to prevent the influence of coexistence of copper and molybdenum are supplemented, whereby the scope is extended.

JIS G 1223 : 1997 contains Annexes as below:

- Annex 1 4,4'-Diantipyrylmethane spectrophotometric method
- Annex 2 Ammonium thiocyanate TOPO-cyclohexane extraction spectrophotometric method

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In the event of any doubts arising as to the contents,  
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## Iron and steel—Methods for determination of titanium content

**Introduction** This Japanese Industrial Standard is prepared based on **ISO 10280**, *Steel and iron – Determination of titanium content – Diantipyrylmethane spectrophotometric method* published in 1991 edited as the Annex 1 in such a manner that the corresponding portions of the corresponding International Standard are translated into Japanese, and portions not specified in the relevant standard such as countermeasures to prevent the influence of coexistence of copper and molybdenum are supplemented, whereby the scope is extended.

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

**2 Normative references** The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. As to those normative references, the most recent editions thereof shall be applied.

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

**JIS Z 8402** *General rules for permissible tolerance of chemical analyses and physical tests*

**ISO 10280** *Steel and iron – Determination of titanium content – Diantipyrylmethane spectrophotometric method*

**3 General requirements** General requirements common to methods for determination shall be in accordance with **JIS G 1201**.

**4 Division of determination methods** The methods for determination of titanium content shall be in accordance with either of the following:

- (1) **4, 4'-Diantipyrylmethane spectrophotometric method** This method is applicable to the sample of titanium contents between 0.002 % (*m/m*) and 2.5 % (*m/m*), and the method for determination shall be in accordance with Annex 1.
- (2) **Ammonium thiocyanate TOPO-cyclohexane extraction spectrophotometric method** This method is applicable to the sample of titanium contents between 0.005 % (*m/m*) and 0.10 % (*m/m*), and the method for determination shall be in accordance with Annex 2, provided that this is not applicable for the sample which contains tungsten, tantalum, or niobium.