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STANDARD

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JIS Z 3233 : 2001

**Tungsten electrodes for
inert gas shielded arc welding,
and for plasma cutting and welding**

ICS 25.160.20

Descriptors : gas tungsten-arc welding, welding electrodes, tungsten, gas-shielded welding

Reference number : JIS Z 3233 : 2001 (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 in accordance with the Industrial Standardization Law. Consequently **JIS Z 3233 : 1990** is replaced with **JIS Z 3233 : 2001**.

This revision is made for conformity with **ISO 6848 : 1984** *Tungsten electrodes for inert gas shielded arc welding, and for plasma cutting and welding—Codification*.

Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have technical properties. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have the said technical properties.

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In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

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Tungsten electrodes for inert gas shielded arc welding, and for plasma cutting and welding

Introduction This Japanese Industrial Standard has been prepared based on the first edition of **ISO 6848** *Tungsten electrodes for inert gas shielded arc welding, and for plasma cutting and welding—Codification*, published in 1984, and the technical contents are the same except for the following. In addition, the specification items (the method for judging straightness and the analytical method for chemical composition) required as the Japanese Industrial Standard (hereafter referred to as “JIS”) are added.

“Outline of deviations in specification contents”

- a) Codification of previous **JIS** is also included for dual specification with the **ISO** codification.
- b) The analytical method for chemical composition is specified in the Annex.
- c) The method for judging straightness is specified in the Annex.
- d) Lot number or manufacturing number is marked on each box or unit package, and no identification colour is marked.

1 Scope This Standard specifies the tungsten electrodes to be used for inert gas shielded arc welding, and for plasma cutting and welding.

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. If the indication of the year of coming into effect (or the year of publication) is given to these referred standards, only the edition of indicated year constitutes the provision of this Standard but the revision and amendment made thereafter are not applied. The normative references without the indication of the year of coming into effect (or the year of publication) apply limiting only to the most recent edition (including amendments).

JIS H 1403 : 1987 *Methods for chemical analysis of tungsten materials*

JIS H 1405 : 1987 *Methods for chemical analysis of thoriated tungsten materials*

ISO 6848 : 1984 *Tungsten electrodes for inert gas shielded arc welding, and for plasma cutting and welding—Codification*

3 Definition tungsten electrodes: Current-carrying bare tungsten rod, with or without oxide additive, serving as anode or cathode for the generation of an electric arc.

4 Codification The codification of tungsten electrodes shall be based on their chemical composition in accordance with Table 1 or Table 2. Either of Table 1 A system or Table 2 B system may be applicable.