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(JWES)

Solid wires and rods for TIG welding of mild steel, high strength steel and low temperature service steel

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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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Contents

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 Welding Engineering Society (JWES) 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 Z 3316**:2011 is replaced with this Standard.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, applications for a patent after opening to the public or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, applications for a patent after opening to the public or utility model rights.

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Introduction

This Japanese Industrial Standard has been prepared based on **ISO 636**:2015, Edition 4 and **ISO 16834**:2012, Edition 2 with some modifications of the technical contents. **ISO 636** is a combined standard between **EN 1668** and the standard used around the Pacific Rim, and **ISO 16834** is a combined standard between **EN 12534** and the standard used around the Pacific Rim. Either or both of the standards may be applied to the specific global markets. Therefore this Standard gives requirements corresponding to the standards used in Pacific Rim (**ISO 636** System B and **ISO 16834** System B) in the text, excluding those for welding consumables used for weather-resistant steel, and MIG and MAG welding, and those corresponding to **EN 1668** (**ISO 636** System A) in Annex JA, and those corresponding to **EN 12534** (**ISO 16834** System A) in Annex JB for reference.

The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standards. A list of modifications with the explanations is given in Annex JC.

1 Scope

This Standard specifies solid rods and wires (hereafter generically referred to as filler metals) used for TIG welding of mild steel, high strength steel with a tensile strength in the range of 490 MPa to 830 MPa, and low temperature service steel.

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

ISO 636:2015 *Welding consumables—Rods, wires and deposits for tungsten inert gas welding of non-alloy and fine-grain steels—Classification*

ISO 16834:2012 *Welding consumables—Wire electrodes, wires, rods and deposits for gas shielded arc welding of high strength steels—Classification* (overall evaluation: 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

The following standards contain provisions which, 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 0203 *Glossary of terms used in iron and steel (Products and quality)*

JIS G 0320 *Standard test method for heat analysis of steel products*