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(JWES/JSA)

**Nickel and nickel-alloy rods, solid
wires and strip electrodes for
welding**

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In the event of any doubts arising as to the contents,
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Contents

	Page
Introduction	1
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Classification and designation by symbols	2
5 Quality	3
5.1 Dimensions, dimensional tolerances and product conditions of filler metals	3
5.2 Chemical composition of filler metals	3
6 Test methods	9
6.1 Decision of lot	9
6.2 Chemical analysis	9
7 Inspection	9
8 Designation of products	9
9 Packaging	10
10 Marking	10
10.1 Marking on products	10
10.2 Marking on packages	10
11 Certificate of inspection	10
Annex JA (informative) Comparison table between JIS and corresponding International Standard	11

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)/Japanese Standards Association (JSA) 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 3334:2007** is replaced with this Standard.

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Nickel and nickel-alloy rods, solid wires and strip electrodes for welding

Introduction

This Japanese Industrial Standard has been prepared based the first edition of **ISO 18274** published in 2004 and **TECHNICAL CORRIGENDUM 1** (2005) and **TECHNICAL CORRIGENDUM 2** (2006) with some modifications of the technical contents.

The portions given sidelines or dotted underlines are the matters in which the contents of the corresponding International Standard have been modified. A list of modifications with the explanations is given in Annex JA.

1 Scope

This Standard specifies the nickel and nickel-alloy rods, solid wires and strip electrodes (hereafter generically referred to as “filler metals”) used for TIG welding, MIG welding, submerged arc welding and overlaying with strip electrode.

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

ISO 18274:2004 *Welding consumables—Wires and strip electrodes, wires and rods for fusion welding of nickel and nickel alloys—Classification* and **TECHNICAL CORRIGENDUM 1:2005** and **TECHNICAL CORRIGENDUM 2:2006 (MOD)**

The 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 0320 *Standard test method for heat analysis of steel products*

JIS G 0321 *Product analysis and its tolerance for wrought steel*

JIS G 0404 *Steel and steel products—General technical delivery requirements*

JIS G 1201 *Iron and steel—General rules for analytical methods*

JIS G 1281 *Methods for chemical analysis of nickel-chromium-iron alloys*

JIS Z 2611 *General rules for photoelectric emission spectrochemical analysis of metal materials*

JIS Z 2615 *General rules for determination of carbon in metallic materials*

JIS Z 3001-1 *Welding and allied processes—Vocabulary—Part 1: General*

JIS Z 3001-2 *Welding and allied processes—Vocabulary—Part 2: Welding processes*

JIS Z 3200 *Welding consumables—Technical delivery conditions for welding filler materials—Type of product, dimensions, tolerances and markings*

NOTE : Corresponding International Standard: ISO 544 *Welding consumables—Technical delivery conditions for welding filler materials—Type of product, dimensions, tolerances and markings* (MOD)

JIS Z 3423 *Procurement guidelines for welding consumables*

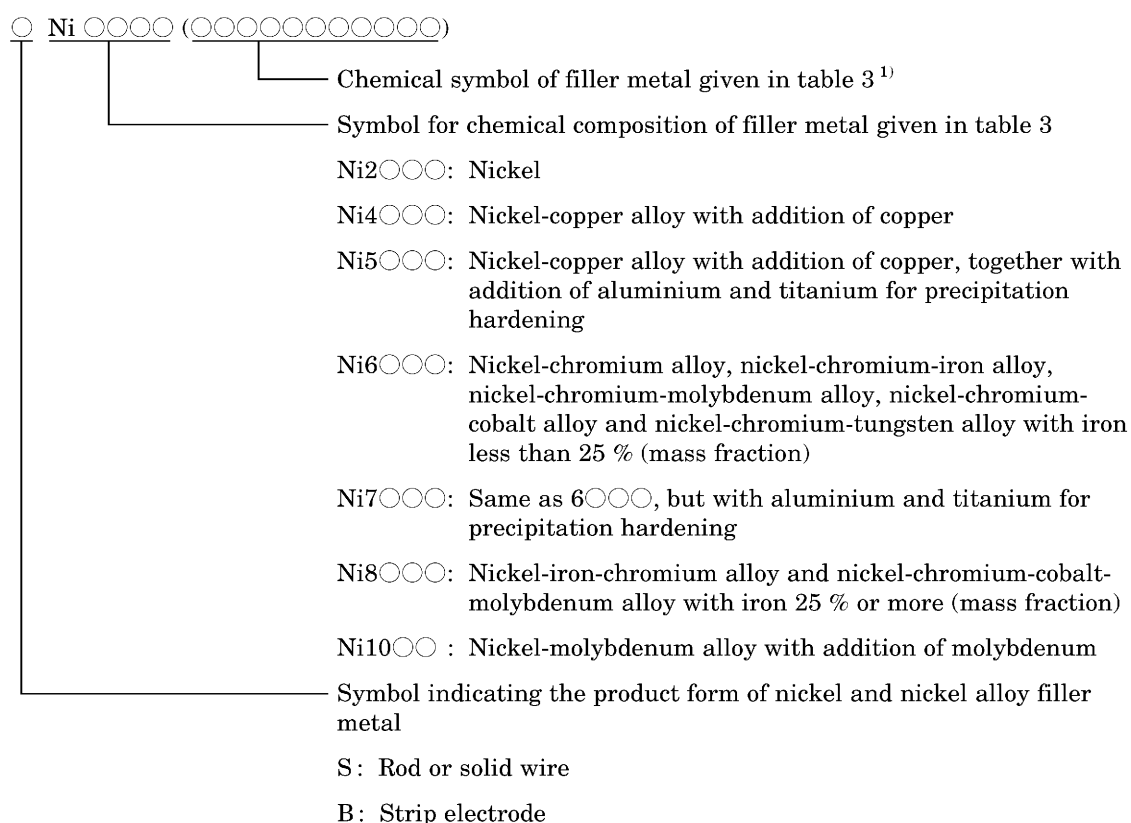
NOTE : Corresponding International Standard: ISO 14344:2002 *Welding and allied processes—Flux and gas shielded electrical welding processes—Procurement guidelines for consumables* (MOD)

3 Terms and definitions

For the purpose of this Standard, the terms and definitions given in **JIS Z 3001-1** and **JIS Z 3001-2** and the following apply.

4 Classification and designation by symbols

The filler metals are classified according to the product form and chemical composition, and designated by symbols as shown in the following.



Note ¹⁾ In addition to the symbol for chemical composition (example: Ni6625), the chemical symbol (example: NiCr22Mo9Nb) may be indicated [example: SNi6625 (NiCr22Mo9Nb)].