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JIS Z 3214 : 1999

Covered electrodes for
atmospheric corrosion
resisting steel

ICS 25.160.20

Descriptors : corrosion-resistant steels, atmospheric corrosion, covered electrodes, arc welding

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Documents

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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 the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently **JIS Z 3214 : 1993** is replaced with **JIS Z 3214 : 1999**.

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.

This revision employs **JIS Z 3200 : 1999** *Welding consumables—Technical delivery conditions for welding filler metals—Type of product, dimensions, tolerances and marking* as the normative reference.

Date of Establishment: 1982-03-01

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Divisional Council on Welding

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In the event of any doubts arising as to the contents,
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Covered electrodes for
atmospheric corrosion resisting steel

1 Scope This Japanese Industrial Standard specifies the covered electrodes to be used for welding of atmospheric corrosion resisting steel (hereafter referred to as “electrodes”).

2 Normative references The standards listed in Attached Fig. 1 contain provisions which, through reference in this Standard, constitute provisions of this Standard.

The most recent editions of the standards shall be applied.

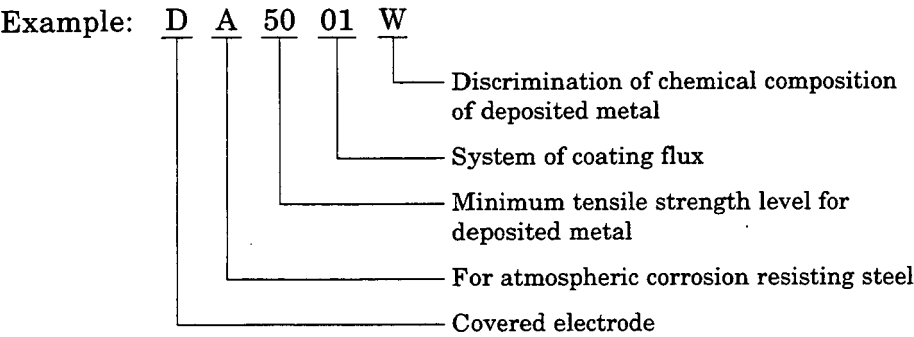
3 Classification The electrodes shall be classified according to the system of coating flux, and chemical composition and tensile strength of the deposited metal as given in Table 1.

In addition, the type of current to be applied and welding position shall be as given in Table 1, and the applicable main steel grades shall be as given in Table 2.

Table 1 Classification of electrodes

Classification	System of coating flux	Type of current	Welding position
DA5001W DA5001P DA5001G	Ilmenite	AC or DC (±)	F, V, O, H
DA5003W DA5003P DA5003G	Lime-titania	AC or DC (±)	F, V, O, H
DA5016W DA5016P DA5016G	Low hydrogen	AC or DC (+)	F, V, O, H
DA5026W DA5026P DA5026G	Iron powder low hydrogen	AC or DC (+)	F, H
DA5000W DA5000P DA5000G	Special	AC or DC (±)	F, V, O, H or any one among those positions
DA5816W DA5816P DA5816G	Low hydrogen	AC or DC (+)	F, V, O, H
DA5826W DA5826P DA5826G	Iron powder low hydrogen	AC or DC (+)	F, H

Remarks 1 The symbol used for identifying the class of electrodes shall be provided as given in the following example:



2 Symbols used for the type of current denote the following matters:

- AC: alternating current;
- DC (±): direct current (electrode positive and electrode negative);
- DC (+): direct current (electrode positive)

3 Symbols used for welding positions denote the following matters;

- F: flat, V: vertical, O: overhead, H: horizontal or horizontal fillet

Among the welding positions given in Table 1, however, welding positions of V and O, as a rule, shall not be applied to the electrode over 5.0 mm in rod diameter (hereafter referred to as "diameter").

Table 2 Applicable main steel type

Classification	Applicable main steel grades
DA50XXW	Type W of atmospheric corrosion resisting steel of which the tensile strength level is 400 N/mm ² and 490 N/mm ²
DA50XXP DA50XXG	Type P of atmospheric corrosion resisting steel of which the tensile strength level is 400 N/mm ² and 490 N/mm ²
DA58XXW	Type W of atmospheric corrosion resisting steel of which the tensile strength level is 570 N/mm ²
DA58XXP DA58XXG	Type P of atmospheric corrosion resisting steel of which the tensile strength level is 570 N/mm ²

Remarks : In the table, XX denotes the system of coating flux given in Table 1.

4 Quality

4.1 Covering The covering shall be in accordance with 3 of JIS Z 3200.

4.2 Chemical composition The chemical composition of the deposited metal shall be tested in accordance with 6.1, and the results shall conform to Table 3.