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Ⓔ JIS G 2304 : 1998

Silicon-manganese

ICS 77.100

Descriptors : silico-manganese, silicon-containing alloys

Reference number : JIS G 2304 : 1998 (E)

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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 Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently **JIS G 2304 : 1986** is replaced with **JIS G 2304 : 1998**.

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Silicon-manganese

Introduction This revision is carried out for the purpose of compliance with the corresponding International Standard.

The Annex to this Standard is prepared based on **ISO 5447, Ferrosilicomanganese—Specification and conditions of delivery** issued as the first edition in 1980 without changing the technical contents, and can be applied in place of the provisions in the text of this Standard.

The “Informative reference” underlined with dotted line in this Annex is the item which does not exist in the original International Standard.

1 Scope This Japanese Industrial Standard specifies the silicon-manganese to be used mainly as deoxidizer, desulfurizing agent or additive of alloy composition for manufacturing of iron and steel.

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions of the standards indicated below shall be applied.

JIS G 1301 *General rules for chemical analysis of ferroalloys*

JIS G 1314 *Method for chemical analysis of silicomanganese*

JIS G 1351 *Method for X-ray fluorescence spectrometric analysis of ferroalloys*

JIS G 1501 *General rules for sampling of ferroalloys*

JIS G 1601 *Methods of sampling for chemical analysis of ferroalloys (Part 1 : Ferromanganese, ferrosilicon, ferrochromium, ferrosilicomanganese and ferrosilicochromium)*

JIS G 1641 *Methods of sampling for size analysis of ferroalloys and size determination*

3 Classification and symbol The class and symbol shall be as given in Table 1.

Table 1 Class and symbol

Class		Symbol
Silicon-manganese	No. 0	SiMn0
	No. 1	SiMn1
	No. 2	SiMn2
	No. 3	SiMn3

4 Method of lot formation

4.1 The lot formation shall be made by any one of the graded lot method, blended lot method and tapped lot method.

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4.2 When the graded lot method is applied, either content of manganese or silicon shall be employed for grade divisions, and the divisional interval of grade shall be not more than 3 %.

4.3 The lot size shall be as given in Table 2.

Table 2 Lot size

Method of lot formation	Graded lot	Blended lot	Tapped lot
Lot size	1 500 t max.	35 t max.	One tap

5 Quality

5.1 Chemical composition The chemical composition shall be specified in Table 3. However, it may be designated as given in Table 4.

Table 3 Chemical composition

Class		Symbol	Chemical composition % (m/m)				
			Mn	Si	C	P	S
Silicon-manganese	No. 0	SiMn0	65 to 70	20 to 25	1.5 max.	0.30 max.	0.05 max.
	No. 1	SiMn1	65 to 70	16 to 20	2.0 max.	0.30 max.	0.02 max.
	No. 2	SiMn2	60 to 65	16 to 20	2.0 max.	0.30 max.	0.03 max.
	No. 3	SiMn3	60 to 65	14 to 18	2.5 max.	0.30 max.	0.03 max.

Table 4 Designated chemical composition

Class		Chemical composition % (m/m)
		P
Silicon-manganese	All classes	0.20 max., 0.15 max., 0.10 max.

5.2 Particle size The particle size shall generally be as given in Table 5.

Table 5 Particle size

Class	Symbol	Particle size mm
General size	g	10 to 150
Fine size	f	1 to 15
Small size	s	10 to 50
Medium size	m	10 to 100