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Ferromanganese

ICS 77.100

Descriptors : ferromanganese, ferro-alloys, manganese-containing alloys

Reference number : JIS G 2301 : 1998 (E)

G 2301:1998

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 2301:1986** is replaced with **JIS G 2301:1998**.

Date of Establishment: 1950-07-28

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Ferromanganese

Introduction This revision is carried out for the purpose of being adjusted to the corresponding International Standard.

The Annex in this Standard is prepared based on **ISO 5446 Ferromanganese—Specification and conditions of delivery** issued as the first edition in 1980 without changing the technical contents and the style of Japanese Industrial Standard, and can be applied in place of the provisions of this Standard text.

Further, “Informative reference” to which the dotted underline is applied in this Annex is the items which do not exist in the original International Standard.

1 Scope This Japanese Industrial Standard specifies the ferromanganese 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 1311 *Method for chemical analysis of ferromanganese*

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
High carbon ferromanganese	No. 0	FMn H0
	No. 1	FMn H1
Medium carbon ferromanganese	No. 0	FMn M0
	No. 2	FMn M2
Low carbon ferromanganese	No. 0	FMn L0
	No. 1	FMn L1

4 Method of lot formation

4.1 The lot formation shall be made by any one of the grade-lot method, blend-lot method and tap-lot method.

4.2 When the grade-lot method is applied, manganese content shall be employed for grade divisions and the divisional intervals of grade shall be not more than 3 %.

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

Table 2 Lot size

Lot formation	Grade-lot method	Blend-lot method	Tap-lot method
Lot size	1 500 t max.	35 t max.	One tap

5 Quality

5.1 Chemical composition The chemical composition shall be as 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	C	Si	P	S
High carbon ferromanganese	No. 0	FMn H0	78 to 82	7.5 max.	1.2 max.	0.40 max.	0.02 max.
	No. 1	FMn H1	73 to 78	7.3 max.	1.2 max.	0.40 max.	0.02 max.
Medium carbon ferromanganese	No. 0	FMn M0	80 to 85	1.5 max.	1.5 max.	0.40 max.	0.02 max.
	No. 2	FMn M2	75 to 80	2.0 max.	2.0 max.	0.40 max.	0.02 max.
Low carbon ferromanganese	No. 0	FMn L0	80 to 85	1.0 max.	1.5 max.	0.35 max.	0.02 max.
	No. 1	FMn L1	75 to 80	1.0 max.	1.5 max.	0.40 max.	0.02 max.

Table 4 Designated chemical composition

Class		Chemical composition % (m/m)		
		C	Si	P
High carbon ferromanganese	All classes	—	0.5 max. 0.3 max.	0.30 max. 0.20 max. 0.15 max. 0.10 max.
Medium carbon ferromanganese	All classes	—	0.5 max.	
Low carbon ferromanganese	All classes	0.50 max. 0.20 max. 0.10 max.	1.0 max.	