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☞ JIS G 2309 : 1998

Ferrotitanium

ICS 77.100

Descriptors : ferrotitanium, ferro-alloys, titanium, refractory metals, transition metals

Reference number : JIS G 2309 : 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 2309 : 1986** is replaced with **JIS G 2309 : 1998**.

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Divisional Council on Iron and Steel

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Ferrotitanium

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 5454, Ferrotitanium—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 test 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 ferrotitanium to be used mainly as deoxidizer, denitrification agent and 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 1319 *Methods for chemical analysis of ferrotitanium*
- JIS G 1351 *Method for X-ray fluorescence spectrometric analysis of ferroalloys*
- JIS G 1501 *General rules for sampling of ferroalloys*
- JIS G 1602 *Methods of sampling for chemical analysis of ferroalloys (Part 2: Ferrotungsten, ferromolybdenum, ferrovandium, ferrotitanium and ferromanganese)*
- 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
Low carbon ferrotitanium	No. 0	FTi L 0
	No. 1	FTi L 1
	No. 3	FTi L 3

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.

4.2 When the graded lot method is applied, titanium content shall be employed for grade divisions, and the divisional interval of grade shall be not more than 2 %.

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	5 t max.	5 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)					
			Ti	C max.	Si max.	Mn max.	P max.	S max.
Low carbon ferrotitanium	No. 0	FTi L 0	70 to 75	0.1	0.3	0.3	0.02	0.02
	No. 1	FTi L 1	40 to 45	0.1	1.0	1.0	0.05	0.03
	No. 3	FTi L 3	24 to 28	0.1	1.0	1.0	0.05	0.03

Table 4 Designated chemical composition

Class		Chemical composition % (m/m)	
		P	S
Low carbon ferrotitanium	No. 0	0.01 max.	0.01 max.
	No. 1	0.03 max.	
	No. 3	0.01 max.	

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

Table 5 Particle size

Classification	Symbol	Particle size mm
General size	g	3.15 to 100
Fine size	f	10 max.
Small size	s	10 to 50