

JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS G 4303 : 2005

Stainless steel bars

ICS 77.140.20 ; 77.140.60

Reference number : JIS G 4303 : 2005 (E)

[This is a preview. Click here to purchase the full publication.](#)

13 S

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 Japan Stainless Steel Association (JSSA)/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 G 4303 : 1998** is replaced with this Standard.

Compliance with this Standard may involve the use of the following patent right concerning the symbol of grade given below.

Symbol of grade	Title of invention	Patent number	Registration date of establishment of patent right
SUS312L	Austenitic stainless steel for building materials	No. 3358678	October 11, 2002

Regardless of this description, it does not affect to effects of patent, patent claim in any way.

The holder of this patent right gives guarantee to the Japanese Industrial Standards Committee with respect to his willingness to permit anyone to exercise the relevant patent right under the nondiscriminatory and reasonable conditions.

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.

Date of Establishment: 1959-12-1

Date Revision: 2005-12-20

Date of Public Notice in Official Gazette: 2005-12-20

Investigated by: Japanese Industrial Standards Committee
Standards Board
Technical Committee on Iron and Steel

JIS G 4303 : 2005, First English edition published in 2006-03

Translated and published by: Japanese Standards Association
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

© JSA 2006

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

Printed in Japan

Contents

	Page
1 Scope	1
2 Normative references	1
3 Grades and symbols	1
4 Chemical composition	2
4.1 Ladle analysis value	2
4.2 Product analysis value	2
5 Mechanical properties	5
5.1 Mechanical properties of austenitic bars	5
5.2 Mechanical properties of austenitic-ferritic bars	6
5.3 Mechanical properties of ferritic bars	7
5.4 Mechanical properties of martensitic bars	7
5.5 Mechanical properties of precipitation hardening bars	9
6 Corrosion resistance	9
7 Shape, dimensions and tolerances	9
8 Calculation method of mass	12
9 Appearance	12
10 Manufacturing process	12
11 Heat treatment	13
12 Tests	13
12.1 Chemical analysis	13
12.2 Mechanical test	13
12.3 Corrosion test	14
13 Inspection	14
14 Marking	15
15 Report	15
Annex (informative) Heat treatment of stainless steels	17

Stainless steel bars

1 Scope This Japanese Industrial Standard specifies the hot-finished stainless steel bars or plate shaped products formed into round bars, square bars, hexagonal bars and flat bars (round bars, square bars, hexagonal bars and flat bars hereafter generically referred to as “bars”).

2 Normative references The standards listed in attached table 1 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.

3 Grades and symbols Bars shall be classified into 61 grades, and the symbols and classification thereof shall be as given in table 1.

Table 1 Symbol of grade and classification

Symbol of grade	Classification	Symbol of grade	Classification
SUS 201	Austenitic series	SUS 321	Austenitic series
SUS 202		SUS 347	
SUS 301		SUS XM7	
SUS 302		SUS XM15J1	
SUS 303		SUS 329J1	Austenitic-ferritic series
SUS 303Se		SUS 329J3L	
SUS 303Cu		SUS 329J4L	
SUS 304		SUS 405	Ferritic series
SUS 304L		SUS 410L	
SUS 304N1		SUS 430	
SUS 304N2		SUS 430F	
SUS 304LN		SUS 434	
SUS 304J3		SUS 447J1	
SUS 305		SUS XM27	
SUS 309S		SUS 403	Martensitic series
SUS 310S		SUS 410	
SUS 312L		SUS 410J1	
SUS 316		SUS 410F2	
SUS 316L		SUS 416	
SUS 316N		SUS 420J1	
SUS 316LN		SUS 420J2	
SUS 316Ti		SUS 420F	
SUS 316J1		SUS 420F2	
SUS 316J1L		SUS 431	
SUS 316F		SUS 440A	
SUS 317		SUS 440B	
SUS 317L		SUS 440C	
SUS 317LN		SUS 440F	
SUS 317J1		SUS 630	Precipitation hardening series
SUS 836L		SUS 631	
SUS 890L			

Remarks : When it is necessary to indicate with a symbol that the products are bars, the letter ·B shall be suffixed to the symbol of grade.

Example : SUS 304·B