



JAPANESE
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STANDARD

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JIS B 7541 : 2001

(JOMA/JSA)

Standard scales

ICS 17.040.30

Descriptors : instrument scales

Reference number : **JIS B 7541 : 2001 (E)**

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 the Japan Optical Measuring Instruments Manufacturers' Association (JOMA)/the Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law. Consequently **JIS B 7541 : 1973** is replaced with this Standard.

Date of Establishment: 1973-01-01

Date of Revision: 2001-03-20

Date of Public Notice in Official Gazette: 2001-03-21

Investigated by: Japanese Industrial Standards Committee
Divisional Council on Precision Machinery

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

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Standard scales

1 Scope This Japanese Industrial Standard specifies the glass standard scales used for the calibration of measuring instruments and for the transfer of length unit to low grade line standards.

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 (including amendments) indicated below shall be applied.

JIS B 0601 *Surface roughness—Definitions and designation*

JIS B 7513 *Precision surface plates*

JIS Z 8103 *Glossary of terms used in measurement*

3 Definitions For the purposes of this Standard the definitions given in **JIS Z 8103** and the following definitions apply.

- a) **measuring axis** The line made by the crossing of the graduated face and the face perpendicular thereto including the alignment marks.
- b) **length of standard scale** The length between the centers of two optional graduated lines along the measuring axis.

4 Name of each part as given in Fig. 1.

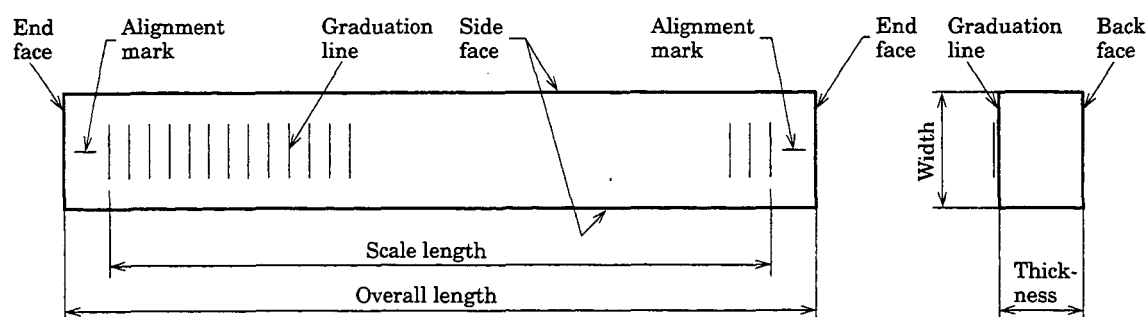


Fig. 1 Name of each part

5 Grades The standard scales are divided into three grades of Grade 0, Grade 1 and Grade 3 according to performance.

6 Material The material used for standard scale shall show clear information about the coefficient of linear expansion of glass material.

Remarks : The coefficient of linear expansion shall be determined within a range of temperature 15 °C to 30 °C.

7 Cross sectional form and dimensions The cross sectional form of the standard scales shall be rectangular or square and the dimensions suitable for satisfying the tolerance on length of the standard scale according to the scale length shall be secured.