

ब्रेल स्लेट — विशिष्टि  
( पहला पुनरीक्षण )

Braille Slate — Specification  
( First Revision )

ICS 11.180.30

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Artificial Limbs, Rehabilitation Appliances and Equipment for the Persons with Disability Sectional Committee,  
MHD 09

## FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Artificial Limbs, Rehabilitation Appliances and Equipment for the Persons with Disability Sectional Committee had been approved by the Medical Equipment and Hospital Planning Division Council.

This standard was first published in 1985. This revision of this standard has been brought out to align the cross references to the latest standards to incorporate the updated designation of materials and the currently used methods of performance. This revision also incorporates Amendment No.1 to IS 11279 : 1985 published in November 2017.

The composition of the committee, responsible for the formulation of this standard is given in [Annex B](#).

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be same as that of the specified value in this standard.

*Indian Standard*  
**BRAILLE SLATE — SPECIFICATION**  
*( First Revision )*

**1 SCOPE**

This standard specifies the dimensional and other requirements for braille slate used for communication by the blind persons.

**2 REFERENCES**

The standards given below contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of these standards:

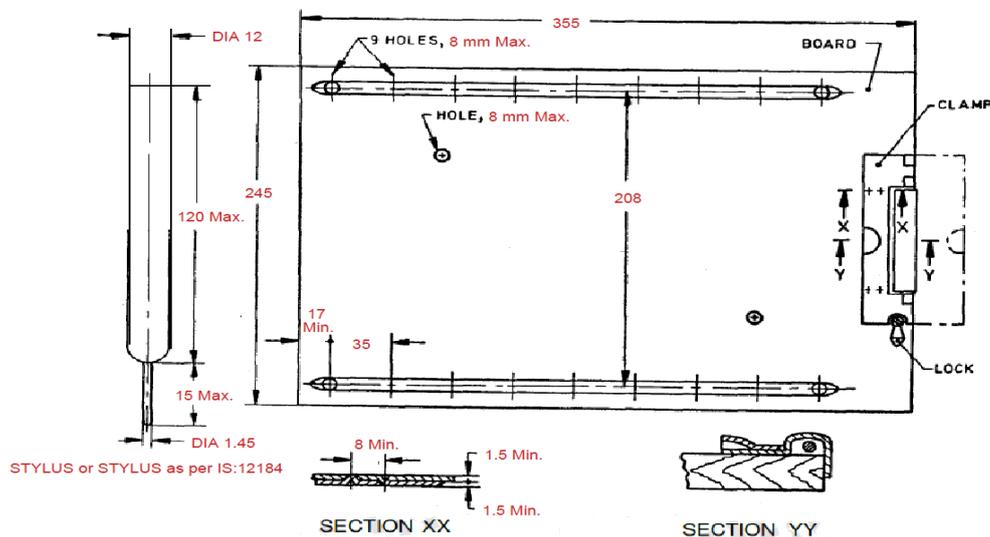
<i>IS No.</i>	<i>Title</i>
IS 303 : 1989	Plywood for general purposes — Specification ( <i>third revision</i> )

*IS No.**Title*

IS 1068 : 1993	Electroplated coatings of nickel plus chromium and copper plus nickel plus chromium — Specification ( <i>third revision</i> )
IS 1868 : 1996	Anodic coatings on aluminum and its alloys — Specification ( <i>third revision</i> )
IS 2629 : 1985	Recommended practice for hot-dip galvanizing of iron and steel ( <i>first revision</i> )
IS 4905 : 2015	Random sampling and randomization procedures ( <i>first revision</i> )

**3 SHAPE AND DIMENSIONS**

**3.1** The shape and dimensions shall be as shown in [Fig. 1](#), [Fig. 2](#) and [Fig. 3](#).

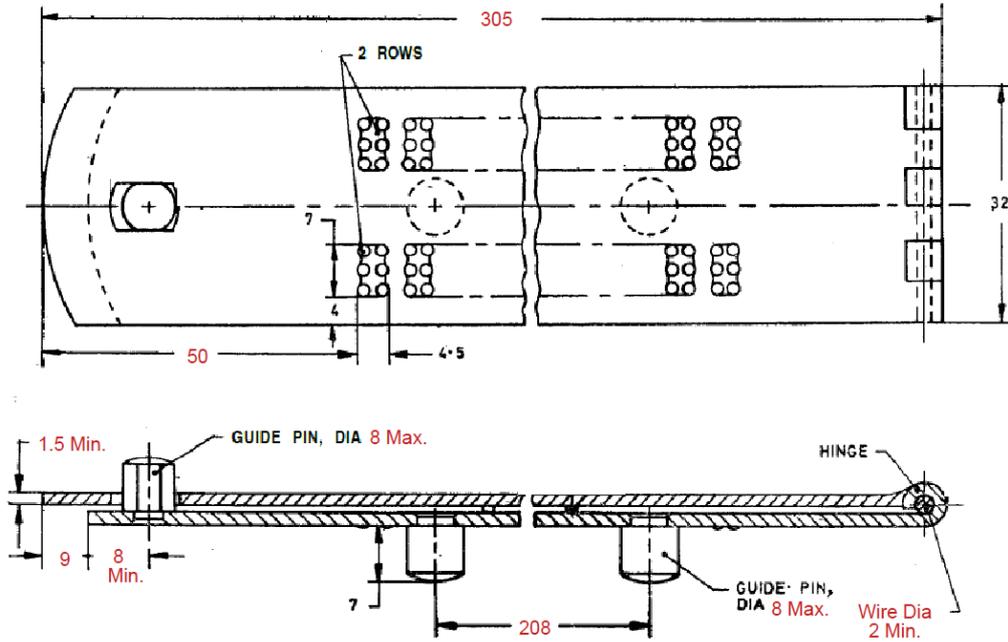


All dimensions in millimetres.

FIG. 1 BRAILLE SLATE

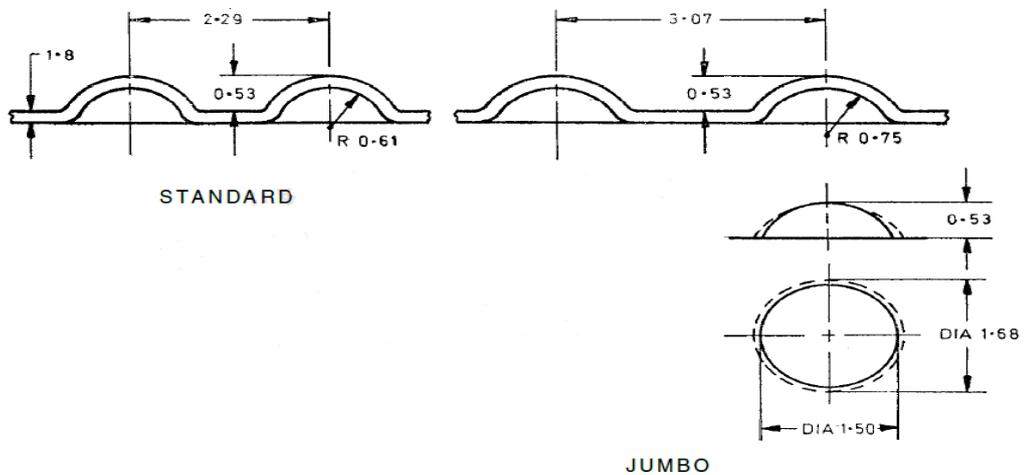
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All dimensions in millimetres.

FIG. 2 WRITING GUIDE



All dimensions in millimetres.

FIG. 3 DETAILS OF CELLS

**3.2** Tolerances on various dimensions shall be permitted as given below:

- a)  $\pm 0.05$  mm on dimensions up to 2.0 mm;
- b)  $\pm 0.1$  mm on dimensions above 2.0 mm and up to 5.0 mm;
- c)  $\pm 0.2$  mm on dimensions above 5.0 mm and up to 20.0 mm;
- d)  $\pm 0.5$  mm on dimensions above 20.0 mm and up to 50.0 mm;
- e)  $\pm 1.0$  mm on dimensions above 50.0 mm and up to 100.0 mm;
- f)  $\pm 2.0$  mm on dimensions above 100.0 mm and up to 200.0 mm; and
- g)  $\pm 5.0$  mm on dimensions above 200.0 mm.

## 4 MATERIAL

### 4.1 Base Board

The base board material shall be plywood of shuttering type double coated as per IS 303, plastics (ABS type) or any other suitable material which shall be durable and light.

### 4.2 Clamps

The clamps shall be of galvanized iron sheet, aluminium, plastic sheets or any other suitable material.

### 4.3 Writing Guide

Writing guide shall be cold rolled carbon steel sheets, aluminium alloy, plastics (ABS type) or any other suitable material.

## 5 CONSTRUCTION

**5.1** The base board shall have grooves on two sides with maximum of 8 mm diameter holes for guiding two-line writing frame. Thickness of the board shall be about 12 mm (minimum) when put on flat surface. Two holes of 8 mm diameter (maximum) at appropriate depths shall be provided on the board in such a manner that the two-line writing frame may be fixed when not in use and does not extend beyond the board.

**5.2** On the top edge of the board clamp shall be fixed. The clamp may have the hinges as shown in the figure or may have any other suitable arrangement for clamping the paper. Four pins as shown in the figure shall be fixed in the clamp in such a way that the writing on both sides of the paper is possible. The distance between the two pins shall be 8 mm. There shall be locking arrangement for locking the clamp when in use.

### 5.3 Writing Guide

The writing guide shall have the cells embossed as shown in [Fig. 2](#). It shall be hinged at one end and a pin and a hole shall be made at the other end, so as to fit in at the appropriate place without any shake or play. Two pins shall also be fixed at a distance, of 208 mm centre to centre so as to guide the writing guide in the holes of the base board.

## 6 WORKMANSHIP AND FINISH

The base board, clamp and the writing guide shall not have any sharp edges, rough surfaces, or any other imperfections. It shall be suitably polished and finished smooth. The wooden components shall be finished smooth and polished by lac with the medium of spirit or shall be given a protective coat of a good grade of clear or pale coloured transparent varnish or painting shall be permitted as an alternate protective coating wherever required. The metal components may be anodized [*see* IS 1868] or chromium over nickel plated [*see* IS 1068] or galvanized [*see* IS 2629].

## 7 TEST

Pull test for clamp. The braille paper shall be fixed suitably within the clamp. A pull of 5 N (500 g approx.) shall be applied uniformly width wise of the paper. The paper shall not come out from the clamp or tear off.

## 8 MARKING

**8.1** The braille slate shall be marked with the manufacturers name, initials or recognized trade-mark.

### 8.2 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed there under, and the product(s) may be marked with the Standard Mark.

## 9 PACKING

The packaging shall be as agreed to between the purchaser and the supplier.

## 10 SAMPLING

Sampling scheme and criteria for acceptance shall be as agreed to between the manufacturer and the purchaser. However, a recommended sampling plan is given in [Annex A](#).

## ANNEX A

(Clause 10)

## SCALE OF SAMPLING AND CRITERIA FOR CONFORMITY

**A-1 Lot**

In any consignment all the braille slates of the same size produced under similar conditions from the same raw material shall constitute a lot.

**A-2** The number of slates to be selected from each lot shall depend upon the size of the lot and shall be in accordance with col (1) and col (2) of [Table 1](#).

**A-2.1** These slates shall be selected from the lot at random and in order to ensure the randomness of

selection, procedures given in IS 4905, may be followed.

**A-3 Number of Tests and Criteria for Conformity**

All the slates selected at random in accordance with col (1) and col (2) of [Table 1](#) shall be tested for shape and dimensions, construction, workmanship and finish and pull test for clamp. The lot shall be considered as conforming to these requirements if none of the slates in the sample is found to be defective in any of these tests.

**Table 1 Scale of Sampling**(Clauses [A-2](#) and [A-3](#))

SI No.	Lot Size	Sample Size
(1)	(2)	(3)
i)	Up to 25	3
ii)	26 to 100	5
iii)	101 to 150	8
iv)	151 to 500	13
v)	501 and above	20

## ANNEX B

*(Foreword)*

## COMMITTEE COMPOSITION

Artificial Limbs, Rehabilitation Appliances and Equipment for the Persons with Disability Sectional Committee, MHD 09

<i>Organization</i>	<i>Representative</i>
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### Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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