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भारतीय मानक मसौदा
ब्रेल पेपर के लिए विशिष्टि
(IS 11647: 1986 का पहला पुनरीक्षण)

Draft Indian Standard
Specification for Braille Paper
(First revision of IS 11647: 1986)

ICS 11.180.30

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

Last date for comments: **02 July 2024**

FOREWORD

(Formal clauses will be added later)

This standard was originally published in 1986. The first revision of this standard has been brought out to align the standard with the latest style and format of Indian Standards. Also, cross-references to Indian Standards have been updated.

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.

1 SCOPE

This standards specifies requirements for the paper used for writing and printing braille for visually impaired 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 editions of these standards.

IS No.	Title
IS 1060 (Part 1): 2022	Methods of sampling and test for paper and allied products Part 1 Test methods for general purpose
IS 1060 (Part 2/Sec 6): 2022 ISO 2758: 2014	Methods of Sampling and Test for Paper and Allied Products Part 6 Methods of Test for Paper Section 2 Determination of Bursting Strength of Paper (<i>first revision</i>)
IS 1060 (Part 6/Sec 1): 2014 ISO 1974: 2012	Methods of Sampling and Test for Paper and Allied Products Part 6 Methods of Test for Paper Section 1 Determination of tearing resistance — Elmendorf method
IS 1060 (Part 6/Sec 3): 2015 ISO 5626: 1993	Methods of Sampling and Test for Paper and Allied Products Part 6 Methods of Test for Paper and Board Section 3 Determination of Folding Endurance of Paper

3 TERMINOLOGY

For the purpose of this standard, the following definitions shall apply.

3.1 Substance

Weight of the paper in grams per square meter under standard atmospheric conditions of $27 \pm 2^{\circ}\text{C}$ and $65 \pm 2\%$ relative humidity.

4 REQUIREMENTS

4.1 General

Braille paper shall be hard pulp (also called ‘ordinary maplithe’) paper air-dried and uniform in thickness. Both sides of the paper shall be clean, free from hard spots, wrinkles and foreign matter like oil, etc.

4.2 Colour

Colour of the paper shall preferably be unbleached cream, white or any other light colour

according to the requirements of the purchaser. However, very dark colours like black, dark blue or violet, etc, shall not be used for the purpose of braille writing or printing.

4.3 The various characteristic requirements such as burst factor, tear factor, folding endurance, etc, shall be as given in Table 1.

TABLE 1 Requirement for braille paper
(Clause 4.3)

Sl No.	Characteristic	Requirement	Method of Test
1.	Burst factor, <i>Min</i>	15	IS 1060 (Part 6/Sec 2) In this standard, burst index is determined, where burst index = burst factor x 0.098
2.	Tear factor, <i>Min</i>	60	IS 1060 (Part 6/Sec 1) In this standard, tear index is determined, where tear index = tear factor x 0.098
3.	Folding endurance, <i>Min</i>	60	IS 1060 (Part 6/Sec 3)
4.	Stiffness, <i>Min</i>	15	IS 1060 (Part 1)
5.	Surface finish, <i>Max</i> (Parker print surf H-20)	7 μ m	-

4.4 Substance and Size

The substance and size of the braille paper to be provided shall be as agreed to between the purchaser and supplier, and shall be selected so as to facilitate the specific braille embossing operation. Suggested substance and sizes are given in Table 2.

TABLE 2 Substance and Size

(Clause 4.4)

SI No.	Purpose	Nominal Substance	Recommended Size	Remarks
i.	Printing of text books or general books on flat bed machines	160	56 x 33 cm	Paper may be supplied in the size of 56 x 66 cm for the convenience of packaging and dispatch from factory
ii.	Printing of periodicals, leaflets, and such other temporary material	150	56 x 33 cm	Paper may be supplied in the size of 56 x 66 cm for the convenience of packaging and dispatch from factory
iii.	Hand transcribing of textbooks/general books on perkins/taj brailers	160	33 x 28 cm	a) The sizes may vary for different braille writers and slates b) The recommended size of braille paper for braille slate as per IS 11279 is 35 x 22 cm
iv.	For routine correspondence, notings and such material	140	33 x 28 cm	a) The sizes may vary for different braille writers and slates b) The recommended size of braille paper for braille slate as per IS 11279 is 35 x 22 cm
v.	Printing of periodicals on rotary printing presses	150	56 x 33 cm	Rolls of suitable size as per the machine requirement
	Notings on pocket frames	140	56 x 33 cm	Pads made to size to suit the pocket frames should be provided

4.5 Tolerance

The actual substance of the braille paper shall not differ from the nominal substance by more than ± 2.5 percent.

5 MARKING

5.1 Each package shall be marked with the following particulars:

- a) Description of the material including size of sheet;
- b) The mass per ream and grams per square metre;
- c) Number of sheets in package and weight of package;
- d) Batch number;
- e) Date of manufacture; and
- f) Manufacturer's name.

Manufacturer's name and initials or recognized trade-mark may be put as watermark on the paper but shall not be marked with ink or embossing on the surface of paper.

5.2 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.

6 PACKING

The paper may be packed as agreed to between the purchaser and the manufacturer.