

<p>भारतीय मानक मसौदा</p> <p><b>मैच बॉक्स के लिए मैच पेपर — विशिष्टि</b></p> <p>(आईएस 3303 का तीसरा पुनरीक्षण)</p> <p><i>Draft Indian Standard</i></p> <p><b>MATCH PAPER FOR MATCH BOX — SPECIFICATION</b></p> <p><i>(Third Revision of IS 3303)</i></p> <p>(Not to be reproduced without the permission of BIS or used as an Indian Standard)</p> <p>ICS 85.060</p>		
Paper based packaging materials Committee, CHD 16	Sectional	<b>Last date of comments: 20 March 2023</b>

## FOREWORD

*(Formal clause shall be added later)*

This standard is formulated in order to define the quality of match paper to provide guidance to manufacturers and to assure supply of proper quality of such paper to the consumers. The use of deep colour in the manufacturing of match paper should be avoided.

This standard was first published in 1965 and subsequently revised in 1986 and 1997. In second revision, the requirement for grammage (substance) was modified and a tolerance was given on the average value of 10 sheets. The requirement for one minute Cobb value was also modified. The marking clause was suitably amended.

This revision has been brought out to bring the standard in the latest style and format of Indian Standards. The test methods have been updated too.

A scheme for labelling environment friendly products to be known as ECO Mark was introduced in the standard at the instance of the Ministry of Environment, Forests & Climate Change (MoEF&CC). The ECO Mark is administered by the Bureau of Indian Standards (BIS).

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'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

## 1 SCOPE

This standard prescribes requirements, methods of sampling and test for match paper for match box.

## 2 REFERENCES

The standards listed in Annex A contain provisions which through reference in this text, constitute provisions of and necessary adjuncts to 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 the standards indicated in Annex A.

## 3 TERMINOLOGY

For the purpose of this standard, the definitions given in IS 4661 (part 1 to 5) shall apply.

## 4 REQUIREMENTS

**4.1** The grammage (substance) of the match paper shall be 40 g/m<sup>2</sup>, *Min*. For determining grammage, select 10 sheets at random and cut from each sheet a test piece of size 25 cm × 25 cm (or 25 cm × 20 cm or 25 cm × 40 cm). Proceed as prescribed in IS 1060 (Part 5/Sec 5).

**4.1.1** The mean of 10 test results shall not vary by more than ± 5 percent from the declared nominal value for grammage and in any case it shall not be below 40 g/m<sup>2</sup>.

**4.2** The match paper shall also comply with the requirements prescribed in Table 1 when tested according to the methods given in col 4 of Table 1.

### Tablet Requirements for Match Paper

(Clauses 4.2 and 7.2)

Sl. No.	Characteristic (2)	Requirement (3)	Method of test (4)
(1)			
i)	Tear index, mN, m <sup>2</sup> /g, <i>Min</i>		IS 1060 (Part 6/Sec 1)
	a) Machine direction	4.5	
	b) Cross direction	5.5	
ii)	Tensile index, N.m/g <i>Min</i>		IS 1060 (Part 5/Sec 6)
	a) Machine direction	39.0	
	b) Cross direction	20.0	
iii)	One minute cobb test, <i>Max</i>	25	IS 1060 (Part 5/Sec 4)

Tear index = Tear factor × 0.098.

Tensile index = Breaking length × 0.009 8

## 4.3 Additional Requirements for ECO Mark

### 4.3.1 General Requirements

The product shall conform to the requirements for quality and performance prescribed under **4.1**.

**4.3.2** The manufacturer shall produce to BIS, the environmental consent clearance from the concerned State Pollution Control Board as per the provisions of Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 along with the authorization, if required, under the Environment (Protection) Act, 1986 and the rules made thereunder, while applying for ECO Mark.

#### **4.3.3 Specific Requirements**

**4.3.3.1** The material shall be of the following two types depending on the raw material used in the manufacture:

- Manufactured from pulp containing not less than 60 percent by mass of pulp made from materials other than bamboo, hard woods, soft woods and reed.
- Manufactured from pulp made from 100 percent waste paper.

### **5 PACKING AND MARKING**

#### **5.1 Packing**

**5.1.1** The paper shall be packed securely and suitably as agreed to between the buyer and the supplier.

**5.1.2** For ECO Mark, the product shall be packed in such packages which shall be recyclable/reusable or biodegradable.

#### **5.2 Marking**

**5.2.1** Each package shall be marked with the following information:

- a) Description of the material;
- b) Grammage, in g/m<sup>2</sup>;
- c) Number of sheets (in the package) and net mass of the contents;
- d) Batch number;
- e) Month and year of manufacture; and
- f) Indication of the source of manufacture.

#### **5.2.2 BIS Certification Marking**

The packages may also be marked with the Standard Mark.

**5.2.2.1** The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the BIS Act, 2016 and the Rules and Regulations framed there under, and the products may be marked with the standard mark.

**5.2.3** For ECO Mark, following additional information may also be marked on the container/package:

"The criteria for which the product has been labelled with ECO Mark."

## 6 SAMPLING

The paper shall be sampled in accordance with 4 of IS 1060 (Part 1).

## 7 CRITERIA FOR CONFORMITY

### 7.1 Number of Tests

The test shall be conducted as given in IS 1060 (Part 1).

7.2 The lot shall be declared as conforming to the requirements of this standard if all the test results meet the relevant requirements prescribed in 4 and Table 1.

## ANNEX A

(Clause 2)

### LIST OF REFERRED INDIAN STANDARDS

<i>IS No.</i>	<i>Title</i>
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 5/Sec 4):2014	Methods of sampling and test for paper and allied products Part 5 methods of test for paper and board Sec 4 determination of water absorptiveness - Cobb method
IS 1060 (Part 5/Sec 6):2014	Methods of sampling and test for paper and allied products: Part 5 methods of test for paper and board: Sec 6 determination of tensile properties - Constant rate of elongation method (20 Mm/min)
IS 1060 (Part 5/Sec 6) : 2014	Methods of sampling and test for paper and allied products: Part 5 methods of test for paper and board: Sec 6 determination of tensile properties - Constant rate of elongation method (20 Mm/min)
IS 1060 (Part 6/Sec 1) : 2014	Methods of sampling and test for paper and allied products: Part 6 methods of test for paper: Sec 1 determination of tearing resistance - Elmendorf method
IS 4661 (Part 1) : 2022	Paper Board Pulps and Related Terms Vocabulary Part 1: Alphabetical Index
IS 4661 (Part 2) : 2022	Paper Board Pulps and Related Terms Vocabulary Part 2: Pulping Terminology
IS 4661 (Part 3) : 2022	Paper Board Pulps and Related Terms Vocabulary Part 3 Paper Making Terminology
IS 4661 (Part 4) : 2022	Paper Board Pulps and Related Terms Vocabulary Part 4 Paper and Board Grades and Converted Products
IS 4661 (Part 5) : 2022	Paper Board Pulps and Related Terms Vocabulary Part 5 Properties of Pulp Paper and Board

