



उत्पाद मैनुअल
प्रतिलिपि के लिए सादा कागज़ — विशिष्ट
14490: 2024 के अनुसार

PRODUCT MANUAL FOR
PLAIN COPIER PAPER — SPECIFICATION
ACCORDING TO IS 14490: 2024

विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम, 2018 की योजना -I के तहत प्रमाणन के संचालन में एकरूपता और पारदर्शिता के लिए इस उत्पाद मैनुअल का उपयोग सभी क्षेत्रीय / शाखा कार्यालयों और लाइसेंसधारियों द्वारा संदर्भ सामग्री के रूप में किया जाएगा। दस्तावेज़ का उपयोग बीआईएस प्रमाणन प्राप्त करने के इच्छुक संभावित आवेदकों द्वारा भी किया जा सकता है।

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure uniformity of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification.

1.	मानक संख्या IS No.	:	IS 14490 : 2024
	शीर्षक Title	:	Plain Copier Paper – Specification प्रतिलिपि के लिए सादा कागज़
	संशोधनों की संख्या No. of amendments	:	Nil
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	Plain copier paper in Reels used by paper converters shall be ISI marked and accompanied with Test Certificate from the manufacturer (of Reels) Note: This section indicates the requirements for raw material (if specified in the IS) for which compliance is to be established during Grant of Licence/Change in Scope of License/Factory Surveillance
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Sample of each grammage from any size category (Cut size/ reels) of any size may be tested to cover the grammage for both size category and all sizes. If sample of Plain copier paper in Reels is tested, cut size may also be included in the scope of licence. However, it shall be ensured that the applicant/licensee has complete manufacturing and testing facilities for the varieties being so covered in the scope of

			licence. During operation of licence, samples of each variety to be drawn in rotation.
c)	नमूने का परिमाण Sample Quantity	:	50 sheets Note: This section indicates the quantity of the sample of the product and/or the raw material (if applicable), required to be sent to the laboratory for testing, for the purpose of Grant of Licence/Change in Scope of Licence/ Factory Surveillance (incase of market surveillance, effort may be made to procure therequired quantity of product sample, as far as possible since raw material sample may not be available in market)
d)	घोषित मान Declared values		1. Nominal Grammage (Substance) 2. Sizes Note: This section indicates declared values to be specified against a parameter (to be specified in Test Requests) to enable testing of sample against the requirement and determine its conformity
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	Please refer to Annex-A देखें
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	Please refer to Annex-B देखें
5.	एक दिन में संभावित परीक्षण Possible tests in a day		
	1. General 2. Moisture 3. Grammage (Substance) 4. Thickness 5. Table 1 Requirements a. ISO Brightness b. Opacity c. One minute cobb test, both sides d. Surface strength, Dennison (Wax Pick) e. Smoothness for both sides (Bendtsen) f. Ash content (at 900°C), g. Taber Stiffness h. Tear Index i. Tensile Index 6. Size Note: This section is for the guidance of BIS Certification Officers/Technical Auditors of BIS Authorized Outside Surveillance Agencies (OSAs) during factory inspection to provide ready reference regarding the tests which can be witnessed during the inspection in the factory by the officer/auditor.		
6.	लाइसेंस का दायरा /Scope of the Licence:		

	14490 :2024 के अनुसार मानक मुहर का उपयोग करने के लिए लाइसेंस निम्नलिखित कार्यक्षेत्र के लिए प्रदान किया जाता है “ Licence is granted to use Standard Mark as per IS 14490 :2024 with the following scope:	
7.	Name of the product उत्पाद का नाम	Plain Copier Paper प्रतिलिपि के लिए सादा कागज़
8.	Nominal Grammage (Substance)	65 GSM/ 70 GSM / 75 GSM/ 80 GSM/ 90 GSM/ 100 GSM
9.	Sizes category and size	1. Cut size- A3, A4, A5, B4, B5, FS, Legal size 2. Reels (with width)

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN,9, BAHADUR SHAH ZAFAR MARG,
NEW DELHI-110002

ANNEX – A
LIST OF TEST EQUIPMENTS
(INDICATIVE LIST, FOR GUIDANCE ONLY)

S. No.	Test used in with clause reference	Test Equipment
1.	Moisture – CI 5.2	Weighing Balance (0.05% accuracy), Vapour proof lightweight Containers, Oven (105±2°), dessicator
2.	Grammage (Substance) – CI 5.3	Cutting device, Weighing Balance, Conditioning chamber Special sheet-weighing balances
3.	Thickness – CI 5.4	Dead weight micrometer and thickness gauges as per IS 1060 (Part 5/Sec 3)
4.	Size – CI 5.5	Vernier calipers, measuring scale or tape
5.	ISO Brightness – CI 5.6 and 7.2 Table 1	Reflectometer with calibration and working standards as per IS 1060 (Part 4/Sec 13) : 2020/ISO 2470-1 : 2016
6.	Opacity – CI 5.6 and 7.2 Table 1	Reflectometer with calibration and working standards as per IS/ISO 2471: 2008
7.	Surface Strength, Dennison (Wax Pick) CI 5.6 and 7.2 Table 1	Smooth Surface, Dennison standard paper testing waxes or equivalent, alcohol or gas flame to test wax pick no. as per 8 of IS 1060 (Pt 3)
8.	One-minute Cobb test – CI 5.6 and 7.2 Table 1	Absorptiveness tester as per IS 1060 (Part 5/Sec 4), Metal roller, 1 mg balance, timer, graduated cylinder, Water, distilled or deionized at 27 °C ± 1 °C , Blotting paper
9.	Smoothness (Bendsten) – CI 5.6 and 7.2 Table 1	Bendtsen tester Type instrument as per IS 1060 (Part 5/Sec 20) : 2018/ISO 8791-2 : 2013
10.	Ash content – CI 5.5 CI 5.6 and 7.2 Table 1	Analytical balance, Dishes (of platinum, ceramics, or silica), Bunser burner, Muffle furnace (900±25°C), dessicator
11.	Taber Stiffness – CI 5.5 CI 5.6 and 7.2 Table 1	Stiffness Determination Apparatus as per IS 1060 (Part 5/Sec 8) : 2024/ISO 2493-2 : 2020
12.	Tear Index – CI 5.5 CI 5.6 and 7.2 Table 1	Elmendorf Type tear tester as per IS 1060 (Part 6/Sec 1), Device for preparing test piece, conditioning chamber, arrangement to carry out test at standard conditions
13.	Tensile Index – CI 5.5 CI 5.6 and 7.2 Table 1	Tensile Testing Machine as per IS 1060 (Part 5/Sec 6), Device for cutting test pieces
14.	Conditioning CI 5.7	Arrangement for pre-conditioning in air of relative humidity between 10 % and 35 % and a temperature not above 40 °C, conditioning chamber, arrangement for standard atmosphere for testing in an atmosphere of 27 °C + /- 1°C and (65 -/+ 2) % r.h.

ANNEX B

SCHEME OF INSPECTION AND TESTING

1. QUALITY ASSURANCE PLAN

1.1 It is expected that manufacturers (licensees/applicants) will implement a Quality Assurance Plan i.e. a plan of regular testing and in-process controls, designed to ensure that the product bearing the Standard Mark conforms to all requirements of the Indian Standard.

1.2 The manufacturers shall define a Quality Assurance Plan defining the control unit (i.e. lot/batch etc.) and the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and submit the same to BIS Branch Office for information. The manufacturer shall comply with the same and maintain test records in accordance with para 2.4.

1.3 RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:

1.3.1 For the guidance of manufacturers, the recommended definition of control unit is:

1.3.1.1 For the product, manufacturing units (licensee units) may be classified into the following two categories:

- a) Paper Mills i.e. those units which are manufacturing plain copier papers (from pulp etc.)
- b) Paper converters i.e. those units which are purchasing ISI Marked plain copier papers in bulk from paper mills and carrying out processing/cutting operations to produce the final product (cut paper) on which standard mark is applied

1.3.1.2 For the purpose of this scheme, following definition of Control unit may be considered

- a) For paper mills - Plain copier paper of same nominal grammage (substance) and size, produced and packed on a particular machine continuously during a day.
- b) For paper converters - Plain copier paper produced using the same batch of ISI Marked paper, and packed on a particular machine continuously during a day.

1.3.2 For the guidance of manufacturers in preparing the Quality Assurance Plan, recommended levels of control are given in Table 1 (A and B).

1.3.3 The manufacturer shall ensure inspection and testing as per the Quality Assurance Plan submitted by them on the whole production of the factory which is covered by this plan. Alternatively, the manufacturer has the option of adherence to the quality plan as per levels of control recommended in column 3 of Table 1.

1.4 However, all manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard.

2 ENSURING COMPLIANCE THROUGH TESTING- It is expected that manufacturers (licensees/applicants) will establish a suitably equipped and staffed in house laboratory (In house testing facility) for testing at least those parameters of the Indian Standard which require routine testing for ensuring quality of the product. This includes in-process controls as may be defined and put in place by the manufacturer and testing parameters/requirements which can only be performed in the factory.

2.1 For the guidance of manufacturers, Table 1 giving the recommended levels of control is given below. Column 2 of Table 1 indicates routine tests where test equipment is required in house as "R" or other tests which can be subcontracted as "S". Subcontracting is permitted to BIS

recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.2 For MSME manufacturers, the requirement of maintaining a laboratory/in-house testing facility for routine tests (indicated as “R” in Column 2 of Table 1) is also optional.

2.2.1 MSME manufacturers may utilize common cluster based facilities as per guidelines for the utilization of cluster based test facilities by MSMEs or the provisions of Sharing of testing facilities or get testing done from BIS recognized/empaneled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.3 Large Scale manufacturers shall maintain an in-house laboratory equipped at least with test facilities for routine tests (indicated as “R” in Column 2 of Table 1), where different tests given in the specification shall be carried out in accordance with the method given in the specification. They shall also implement a calibration plan for the in-house test equipment.

2.3.1 Alternatively, in lieu of an in-house laboratory, large scale manufacturers can also utilize the provisions of Sharing of testing facilities as per the Guidelines for Grant of Licence available on BIS website www.bis.gov.in. (Under Conformity Assessment>Product Certification Process). Even for subcontracted tests, provisions for sharing of testing facilities can be utilized.

2.4 TEST RECORDS- The manufacturers maintaining an in-house laboratory or utilizing common cluster based facilities or shared test facilities shall maintain test records for the tests carried out to establish conformity. For the tests being subcontracted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025, test reports issued by the laboratories shall be available for inspection by BIS.

3. PACKING AND MARKING - The Standard Mark, as given in the Schedule of the license shall be stenciled or printed on the package of each ream or reel of paper or printed on the label applied to it in such a way that the mark is destroyed on opening the ream or reel; provided always that the paper in the ream or reel so marked conforms to all the requirements of the specification.

3.1 Packing and Marking shall be done as per the Indian Standard.

3.2 Additional Marking requirements: The package/label applied shall also be marked with the following additional requirement on shall be marked on each piece of float glass.

- a) “For BIS certification details please visit www.bis.gov.in”

4. TEST CERTIFICATE – Each consignment of Reels supplied to paper converters and further used for converting to cut sizes, shall be accompanied by a test certificate indicating conformity of the paper to the Standard. Suggested Format for the test certificate is given at Annexure-I.

5. REJECTION - All the production which conforms to the Indian Standard and covered under the scope of this licence shall be marked with the Standard Mark. Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act, 2016.

TABLE 1
(ONLY FOR GUIDANCE PURPOSE)

A. For Paper Mills

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Clause	Test Method Reference		No. of Sample	Frequency	Remarks
5.1	General	-	1060 (Part 5/ Sec 20) 1060 (Part 3)	R	Manufacturer shall ensure adequate inspection and in process control, to ensure product meets specified requirements and maintain records		
5.2	Moisture	-	IS 1060 (Pt 5/ Sec 2)	R	One	Each control unit	
5.3	Grammage (Substance)	-	IS 1060 (Pt 5/ Sec 5)	R	-do-	-do-	
5.4	Thickness	-	IS 1060 (Pt 5/ Sec 3)	R	-do-	-do-	
5.6 & 7.2 Table 1	Requirements						
i)	ISO Brightness	-	IS 1060 P-4/ sec 13	R	-do-	-do-	Requirement of brightness shall be applicable for white paper only.
ii)	Opacity	-	IS/ISO 2471	R	-do-	-do-	
iii)	One minute cobb test, both sides	-	IS 1060 (Pt 5/Sec 4)	R	-do-	-do-	
iv)	Surface strength, Dennison (Wax Pick)	-	IS 1060 (Pt 3)	R	-do-	-do-	
v)	Smoothness for both sides (Bendtsen)	-	IS 1060 (Part 5/ Sec 20)	R	-do-	-do-	
vi)	Ash content (at 900°C),	-	IS 1060 (Part 4/ Sec 3)	R	-do-	-do-	

vii)	a) Taber Stiffness b) Machine Direction Cross Direction	-	IS 1060 (Part 5/ Sec 8)	R	-do-	-do-	
viii)	a) Tear Index b) Machine direction Cross Direction	-	IS 1060 (Pt 6/Sec 1)	R	-do-	-do-	
ix)	a) Tensile Index b) Machine direction Cross Direction	-	IS 1060 (Pt 5/Sec 6)	R	-do-	-do-	
5.5	Size	-	IS 1064	R	-do-	-do-	

B. For paper converters

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Method Clause	Reference		No. of Sample	Frequency	Remarks
5.1	General	-	1060 (Part 5/ Sec 20) 1060 (Part 3)	R	Manufacturer shall ensure adequate inspection and in process control, to ensure product meets specified requirements and maintain records		
5.2	Moisture	-	IS 1060 (Pt 5/ Sec 2)	R	One	Each control unit	
5.3	Grammage (Substance)	-	IS 1060 (Pt 5/ Sec 5)	R	-do-	-do-	
5.4	Thickness	-	IS 1060 (Pt 5/ Sec 3)	R	-do-	-do-	
5.6 & 7.2 Table 1	Requirements						
i)	ISO Brightness	-	IS 1060 P- 4/ sec 13	R	-do-	-do-	
iv)	Surface strength, Dennison (Wax Pick)	-	IS 1060 (Pt 3)	R	-do-	-do-	
v)	Smoothness for both sides (Bendtsen)	-	IS 1060 (Part 5/ Sec 20)	R	-do-	-do-	
5.6 5.5	Size	-	IS 1064	R	-do-	-do-	

TABLE 2
RECORD OF WRITING AND PRINTING PAPERS (Converted from reels by paper converters)

Sl. No.	Name of the manufacturer (Paper Mill)	Particulars of test reports received with C.U/Lot no.	Date of manufacture (Month and year)	Quantity received	Date of receipt	Date of paper converted from reels	Lot no.	Details of paper converted		Details of dispatch
								Size	quantity	
1	2	3	4	5	6	7	8	9	10	11

ANNEXURE –I
TEST CERTIFICATE
(PARA 5.3 OF THE SCHEME OF INSPECTION AND TESTING)

ABC LIMITED
(REGISTERED OFFICE ADDRESS AND WORKS ADDRESS)
BIS LICENCE NO CM/L-

TEST CERTIFICATE FOR PLAIN COPIER PAPER

TEST CERTIFICATE NO. _____ DATE: _____

SUPPLIED TO M/S _____ (CONSIGNEE NAME AND ADDRESS)

We certify that the material described below fully conforms to the requirement of IS 14490: 2024. The properties of the product, as tested in accordance with Scheme of Inspection and Testing contained in the BIS Certification Marks Licence CM/L No. ____ are as indicated below against each order.

(PLEASE REFER TO IS 14490:2024 FOR DETAILS OF SPECIFICATION REQUIREMENTS)

TEST RESULTS

Order no and date	Name of the material	Test	Requirement	Observed value	Control Unit/ Batch Number	Month and Year of manufacture	Quantity	Remarks
		General						
		Moisture						
		Grammage (Substance)						
		Thickness						
		ISO Brightness						
		Opacity						
		One minute cobb test, both sides						
		Surface strength, Dennison (Wax Pick)						
		Smoothness for both sides (Bendtsen)						
		Ash content (at 900°C),						
		Taber Stiffness						
		a) Machine Direction						
		b) Cross Direction						
		Tear Index						
		a) Machine direction						
		b) Cross Direction						
		Tensile Index						
		a) Machine direction						
		b) Cross Direction						
		Size						

The material supplied conforms to specified requirements of IS 14490:2024.

REMARKS:

Container ship no.

(Signature)
For XYZ Company

MATERIAL SUPPLIED BY

Name and Address of manufacturer:

Recognized Trade Mark if any: