



उत्पाद मैनुअल
चुंबकीय स्याही चरित्र पहचान जांच मुद्रण के लिए कागज के लिए विशिष्टता
IS 11087 : 1986
के अनुसार

PRODUCT MANUAL
FOR SPECIFICATION FOR PAPER FOR MAGNETIC INK CHARACTER
RECOGNITION CHEQUE PRINTING
ACCORDING TO IS 11087 : 1986

भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम 2018 की स्कीम- I के तहत यह उत्पाद मानुअल प्रमाणीकरण के प्रचलन में रीति और पारदर्शिता के सुसंगत सुनिश्चित करने के लिए सभी क्षेत्रीय/शाखा कार्यालयों एवं लाइसेंस धारियों द्वारा संदर्भ सामग्री के रूप में उपयोग किया जाएगा। बीआईएस लाइसेंस/प्रमाण पत्र प्राप्त करने के इच्छुक भावी आवेदकों द्वारा भी इस दस्तावेज़ का उपयोग किया जा सकता है।

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure coherence 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 licence/certificate.

1.	उत्पाद Product	:	IS 11087 : 1986
	शीर्षक Title	:	चुंबकीय स्याही चरित्र पहचान जांच मुद्रण के लिए कागज के लिए विशिष्टता SPECIFICATION FOR PAPER FOR MAGNETIC INK CHARACTER RECOGNITION CHEQUE PRINTING
	संशोधनों की संख्या No. of amendments	:	5
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	ISS . में किसी कच्चे माल की आवश्यकता का उल्लेख नहीं किया गया है No raw material requirement has been mentioned in the ISS
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	NA
c)	नमूने का आकार Sample Size	:	20 SHEETS
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	कृपया संदर्भ देखें ANNEX – A Please refer ANNEX – A
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	कृपया संदर्भ देखें ANNEX – B Please refer ANNEX – B

5.	एक दिन में संभावित परीक्षण Possible tests in a day	
	All the tests as per IS 11087:1986 can be carried out in a single day during the inspection.	
6.	लाइसेंस का दायरा /Scope of the Licence:	
	"आईएस: 11087 : 1986 के अनुसार मानक मुहर का उपयोग करने के लिए लाइसेंस निम्नलिखित कार्यक्षेत्र के लिये प्रदान किया जाता है "Licence is granted to use Standard Mark as per IS : 11087 : 1986 with the following scope:	
	उत्पाद का नाम Name of the product	PAPER FOR MAGNETIC INK CHARACTER RECOGNITION CHEQUE PRINTING
	प्रकार Type	a) Paper and Paper Boards manufactured out of pulp containing not less than 60 percent by weight of pulp made from materials other than bamboo, hardwoods, softwoods and reed. b) Recycled paper and paper Board made from 100 percent waste paper
	Any other aspect as per Standard	Eco Mark, if available

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

ANNEX-A

TO THE PRODUCT MANUAL FOR SPECIFICATION FOR PAPER FOR MAGNETIC INK CHARACTER RECOGNITION CHEQUE PRINTING

ACCORDING TO IS **11087 : 1986**

Major test equipment required to test as per the Indian Standard

Tests and cl. No.	Test Equipment Required
3.1 Description	Steel scale Flat Platform
3.3 Substance	Steel scale Vernier Callipers Weighing Balance Flat Platform
3.4 Thickness	A Sheet holder consisting of two parallel plane faces, which are parallel to within 0.005 mm and constrained to move apart in the direction perpendicular to their planes. The smaller of the faces, which generally moves, should be circular, with 14 to 16.5 mm diameter and should be geared to a dead weight micrometer. (the pressure exerted by the moving member on specimen should be 1.00+/- 0.10 kg/cm ² .)
3.5 Size	Steel scale Vernier Callipers
Smoothness, s/50 ml, (Table 1 Sr. No.1)	GURLEY - HILL SPS INSTRUMENT (of specifications as per Cl. 4.1 of IS : 9894) Cutter Steel scale Stop Watch Conditioning Chamber (27+/-2°C65+/-5 RH)
Porosity, s/100 ml, (Table 1 Sr. No.2)	Air Resistance Apparatus (of specifications as per Appendix A of IS : 3413) Cutter Steel scale Stop Watch Lubricating Oil Conditioning Chamber (27+/-2°C65+/-5 RH)
Opacity, percent, (Table 1 Sr. No.3)	Apparent light reflectance measurement device (Opacimeter) with incandescent lamps at a colour temperature of 2 400 to 2800 K Magnesium Oxide (Apparent Reflectance of 100 %), White Backing (Apparent Reflectance of 91.5 %) ,Black Backing (Apparent Reflectance of max 0.5%)
Wax pick (on both sides) (Table 1 Sr. No.4)	Smooth block or table Dennison standard paper testing waxes Spirit Lamp Wooden block with a hole Burner
Tearing strength, (Table 1 Sr. No.5)	Vernier Callipers Cutters Ballistic Type Tear tester
Stiffness, gf.cm, (Table 1 Sr. No.6)	Stiffness tester with following specifications; (a) bending angle 15.0 +/- 0.1 deg., (b) bending length 38.0 +2.5 , - 0.1 mm,

	(c) test piece width 38.0+/-0.2 mm, (d) rate of bending such that a bending angle of 15.0 deg is reached in not less than 3 s and not more than 20 s. It is essential that bending during the test is continuous and the rate of bending should be reasonably constant, (e) scale readings accurate to +/-2 percent on the appropriate range Knife and template
3.7 Colour	White Screen
3.8 Watermark	Steel Scale
3.9 Sensitization to chemicals, solvents and UV rays	UV chamber/ UV Lamp All the chemicals and solvents for which sensitization has been requested by the purchaser
4.2 Nominal Mass of ream	Steel scale Vernier Callipers Weighing Balance Flat Platform

Note :

- 1. The room/laboratory should be designed such that that (the lab should have a humidifier, dehumidifier and AC), relative humidity of 65+/-2 percent and temperature of 27+/- 2 Degree C can be attained in the room/laboratory for the conditioning of the specimen before carrying out the tests as specified in cl 3.3, 3.4, 3.5. As an alternative, a conditioning chamber with means to achieve above atmospheric conditions may be used. A thermometer of L.C 1 degree C and a hygrometer with L.C 1 % RH should be available in case the room/ laboratory itself is designed to be used for conditioning.***
- 2. The list is indicative & may not be treated as exhaustive.***

ANNEX – B
TO PRODUCT MANUAL FOR SPECIFICATION FOR PAPER FOR MAGNETIC INK
CHARACTER RECOGNITION CHEQUE PRINTING
ACCORDING TO IS 11087 : 1986
Scheme of Inspection And Testing

1. **LABORATORY** – A laboratory shall be maintained which shall be suitably equipped (as per the requirement given in column 2 of Table 1) and staffed, where different tests given in the specification shall be carried out in accordance with the methods given in the specification.
 - 1.1 All test apparatus/measuring instruments shall be periodically checked, verified and calibrated and records of such checks/verification/calibration shall be maintained.
2. **TEST RECORDS** – The manufacturer shall maintain test records for the tests carried out to establish conformity at frequency mentioned in table 1.
3. **LABELLING AND MARKING** – The standard mark as given in the Schedule of the licence shall be stenciled or printed on each ream or roll of paper for magnetic Ink Character Recognition Cheque Printing or printed on the label applied to it in such a way that the mark is destroyed on opening the ream or roll; provided always that the paper in the ream or roll so marked conforms to all the requirements of the specification.
 - 3.1 In addition, the following information shall be marked on each reel or ream on the label applied to it:
 - a) Description, thickness in mm and substance, in g/m^2 of the paper;
 - b) Size of paper in the package or length and width of the roll;
 - c) In the case of sheets, the mass in kg per ream of 500 sheets including wrapping paper when determined in accordance with the method prescribed in Appendix B; in the case of rolls, the mass in kg of the roll including the mass of the core and plugs;
 - d) Identification in code to trace the relevant approved ream or roll;
 - e) Month and year of the manufacture; and
 - f) Manufacturer's name or recognized trade-mark; if any;
 - g) "Made in India", if required.
 - 3.2 For consignment to be transhipped, the pictorial marking "USE NO HOOKS" and 'DO NOT PUNCTURE' as contained in IS : 1260 (Part II) pictorial markings for handling and labeling of Goods Part II General Goods (second revision) shall be stenciled on each ream or reel.
 - 3.3 The packing of Magnetic Ink Character Recognition Cheque Printing Paper shall be as per code or practice for packing of paper and board (see IS : 6211).
 - 3.4 The ECO mark shall also be marked, if the product is also covered under ECO Marking.

For Eco Mark, the product shall be packed in such packages which shall be recyclable/reusable or biodegradable.
4. **CONTROL UNIT** –For the purpose of this scheme the production made on a particular machine continuously during a day shall constitute a control unit.
 - 4.2 Each ream or reel constituting the control unit shall be examined for formation, finish and visual defects, as well as size shall satisfy the requirements as given in the specification. In case the ream/reel is found defective it shall be segregated and not used for marking.

4.3 Routine analysis of each consignment of raw material received in the factory shall be carried out and appropriate records maintained. Adequate inspection at various stages of manufacture shall be ensured.

5. LEVELS OF CONTROL – The tests as indicated in column 1 of Table 1 and the levels of control in column 3 of Table 1, shall be carried out on the whole production of the factory which is covered by this plan and appropriate records maintained in accordance with paragraph 2 above.

6. HYGIENIC CONDITIONS – **No requirement regarding hygienic conditions has been mentioned in the IS : 11087: 1986.** However, it is recommended to maintain hygienic practices in process and storage areas.

7. REJECTIONS – 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.

TABLE1
LEVELS OF CONTROL (Para 5.0 of the Scheme of Inspection and Testing)

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Clause Reference	Test Methods		No. of Sample	Frequency	Remarks
3.1	Description	3.1	11087	R	One ream/roll	Each Ream or Roll	See Cl 4.2 of SIT
3.2	Absence of Magnetisable Particles	3.2	The manufacturer shall give warranty that the paper is free from magnetisable particles				-----
3.3	Substance	6	IS 1060 Part 1	R	Six Reams/rolls	Every Control Unit	-----
3.4	Thickness	7	IS 1060 Part 1	R	Six Reams/rolls	Every Control Unit	-----
3.5.1	Size	3.5.1	IS 11087 IS 1064	R	Six Reams/rolls	Every Control Unit	-----
Table 1 sr. No.1	Smoothness	4	IS 9894	R	One Reams/rolls	Every Control Unit	-----
Table 1 sr. No.2	Porosity	Appendix A	IS 3413	R	One Reams/rolls	Every Control Unit	-----
Table 1 sr. No.3	Opacity	16	1060 : Part 1	R	One Reams/rolls	Every Control Unit	-----
Table 1 sr. No.4	Wax Pick (on both sizes)	8	1060 : Part 3	R	One Reams/rolls	Every Control Unit	-----
Table 1 sr. No.5	Tearing Strength	12	1060 : Part 1	R	One Reams/rolls	Every Control Unit	-----
Table 1 sr. No.6	Stiffness,	Appendix A	IS 11087	R	One Reams/rolls	Every Control Unit	-----
3.7	Colour	3.7	IS 11087	R	Six Ream/roll	Every Control Unit	-----
3.8	Watermark	3.8	IS 11087	R	Six Ream/roll	Every Control Unit	-----
3.9	Sensitization to chemicals, solvents and UV rays	3.9	IS 11087	R	One Reams/rolls	Every Control Unit	-----

Note-1: Whether test equipment is required or sub-contracting is permitted in column 2 shall be decided by the Bureau and shall be mandatory. Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empanelled by the Bureau.

Note-2: Levels of control given in column 3 are only recommendatory in nature. The manufacturer may define the control unit/batch/lot and submit his own levels of control in column 3 with proper justification for approval by BO Head.