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उत्पाद मैनुअल

Textiles — Handloom Cotton Bed Sheets — Specification

IS 745: 2021 के अनुसार

PRODUCT MANUAL

FOR Textiles — Handloom Cotton Bed Sheets — Specification

ACCORDING TO IS 745: 2021

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 745: 2021
	शीर्षक Title	:	Textiles — Handloom Cotton Bed Sheets — Specification
	संशोधनों की संख्या No. of amendments	:	NIL
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	Raw material shall comply with the requirements specified in clause 4.1 of IS 745. 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 Licence/Factory Surveillance.
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Please refer to Annex-A

c)	नमूने का परिमाण Sample Quantity	:	2 SQM 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 (in case of market surveillance, effort may be made to procure the required quantity of product sample, as far as possible since raw material sample may not be available in market)
d)	परीक्षण अनुरोध में घोषित किए जाने वाले पैरामीटर Parameters to be Declared in Test Request	:	i) Length & Width ii) Type iii) Variety iv) Finish Note: Apart from the above, any other requirements/parameters may also be declared as per the standard, as applicable.
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	Please refer to Annex-B
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	Please refer to Annex-C
5.	एक दिन में संभावित परीक्षण Possible tests in a day		
	All tests are possible to be carried out in a day except Mass, Dimensional Change & Colour Fastness. 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:		
	“Licence is granted to use Standard Mark as per IS 745 : 2021 with the following scope:		
	Name of the product	Textiles - Handloom cotton bed sheets	
	Variety	1-15	
	Type	Grey/Finished	
	Finish (if applicable)	Bleached/Dyed	

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ANNEX-A
GROUPING GUIDELINES

- 1) IS 745:2021 covers the requirements of 15 varieties of Textiles Handloom cotton bed sheets i.e. Variety 1 to Variety 15.
- 2) Further, Bedsheets may be of 2 types i.e. Grey or Finished.
- 3) Furthermore, Finished Bedsheets may be of 2 Finishing i.e. bleached or dyed.
- 4) In view of above, the following grouping guidelines shall be considered for the purpose of GoL/CSoL:
 - a) Sample for each variety of any size intended to be covered in the licence shall be drawn and tested to cover all sizes of that variety in the scope of the licence.
 - b) If dyed bedsheet samples are drawn and tested, bleached & Grey bedsheets may also be covered in the scope of licence. Similarly, if Bleached bedsheet samples are drawn and tested, Grey bedsheets may also be covered in the scope of licence.
- 5) Scope of licence shall be restricted based on the manufacturing and testing facilities available.
- 6) During operation of licence, samples of each variety covered in the scope of licence, shall be tested in rotation, to the extent possible.

ANNEX-B

LIST OF TEST EQUIPMENTS

(INDICATIVE LIST, FOR GUIDANCE ONLY)

Sl. No.	Tests Used In With Clause Reference	Test Equipment/Chemical
1.	Count Of Yarn, Clause 5.1	Crimp Tester Balance — with least count 1 mg
2.	Ends and Picks, Clause 5.1	Conditioning Chamber METHOD A — BY TRAVERSING THREAD COUNTER Thread counter or Counting Glass Flat Table METHOD B — COUNTING GLASS A counting glass with the aperture width of 20 mm $\pm$ 0.05 mm or 30 mm $\pm$ 0.05 mm or 1 inches $\pm$ 0.02 inches at all the places. The thickness of the base plate at the edges of the aperture shall not exceed 1 mm. METHOD C — BY DISSECTION OF FABRIC Clamps — comprises of two short pins parallel to each other and with their points being within $\pm$ 0.2 mm of the minimum measuring distance specified in Table 1 of IS 1963. Forceps — one pair of pointed forceps for removing threads.
3.	Mass g/m ² , Clause 5.1	Method A- Conditioned Mass Method Horizontal Flat Smooth Table, Graduated Steel Scale, Balance (L.C. 0.005 g), Conditioning Chamber, Calibrated Steel Rule of at least 2 m Method B- Oven-Dry Method Horizontal Flat Smooth Table, Graduated Steel Scale, Drying Oven, Balance (L.C. 0.005 g), T-Square As per Annex-D GSM Cutter, Weighing Balance, Desiccator, Sodium nitrate, Thermometer
4	Breaking Strength, Clause 5.1	Constant Rate of Extension Tensile Testing Machine, Equipment for cutting test specimen and for fraying them to obtain the required width, Conditioning chamber

5	Identification of material , Clause 5.2	i) For preliminary identification Alcohol 92%, Phloroglucinol, Hydrochloric acid ii) For physical inspection Compound Microscope (100X-500X), Dissecting Needles, glass slides, cover glasses, and cross sectioning device iii) By Staining Test or Dissolution test Mixture of dyestuffs (e.g. Zinc chloride, Detex, Shirlastain etc.), Known Dyed Samples or Sulphuric acid 80%, Cuprammonium hydroxide, NaOH 5%
6	Dimensional change, Clause 5.2	Soap solution, Soft water (not more than 50 mg/kg hardness), Anhydrous sodium carbonate, Wash wheel, Extractor & Pressing Equipment as per clause 5.1, 5.2 & 5.3 of IS 9, Marking Equipment as per ISO 3759:2011 (Indelible ink, Fine threads of contrasting colour, Heated wire, staples, Smooth& flat surface, Workroom stands), Measuring scale
7	Scouring loss, Clause 5.2	Soxhlet apparatus, Drying oven, Desizing enzyme, Sodium chloride, Caustic soda, Acetic acid solution, Chloroform, Diastase, Weighing balance with accuracy of 0.001g, Conical Flask, Hot Plate
8	pH value of the aqueous extract, Clause 5.2	Distilled or Deionized Water, Potassium chloride Solution, Buffer solutions, Stoppered glass or Polypropylene flasks, Mechanical shaker, Beakers, Rods, pH meter with a glass electrode, Weighing balance, Volumetric flask, Sample preparation/ Cutting equipment
9	Colour fastness to Light, Clause 5.2	Blue wool references, Humidity test control fabric, Light source, Temperature Sensor, Humidity chamber, Covers, Colour matching lamps, Assessment cabinet, Sample mounting card, Assessment mask, Grey scale for assessing change in colour
10	Colour fastness to Washing, Clause 5.2	Suitable mechanical laundering device, Balance (0.01 g), Mechanical stirrer, Non-corrodible (stainless steel balls), Means of heating the soap solution, Soap, Sodium Carbonate, Soap Solution, Grade 3 water, Adjacent fabrics, Multifibre adjacent fabric, Two single fibre adjacent fabrics, Non-dyeable fabric, Grey scales
11	Colour Fastness To Rubbing, Clause 5.2	Suitable device to determine colour fastness to rubbing, Cotton rubbing cloth, Soft-back waterproof abrasive paper, Grey scale, Perforated shelf, distilled water

12	Colour Fastness To Bleaching, Clause 5.2	Glass/Glazed Porcelain container, Sodium Hypochlorite/Lithium hypochlorite solution, Hydrogen peroxide, Soap solution, Grey scale, Grade 3 water
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ANNEX C

SCHEME OF INSPECTION AND TESTING

1. QUALITY ASSURANCE PLAN

1.1 It is expected that during operation of BIS licence, manufacturers will implement a Quality Assurance Plan (QAP) 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 (QAP) defining the control unit (i.e. lot/batch etc.), the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and declare the arrangement for testing i.e. whether in-house or subcontracting/sharing for each applicable test and submit the same to BIS Branch Office for information. The manufacturer shall comply with the QAP and maintain test records in accordance with para 2.1.

1.3 RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:

1.3.1 For the guidance of manufacturers, the recommended definition of control unit is: All the bedsheets of a particular variety, type and finish, manufactured under similar conditions from the same raw material in 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**. Manufacturer has the discretion of declaring their own levels of control or accept the levels of control given in this document.

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.

2. ENSURING COMPLIANCE THROUGH TESTING- manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard for which they may have in-house test facilities. However, there is no obligation to maintain in-house laboratory. Licensee may use alternative arrangements for tests of the production as per the declared QAP. Various alternatives are available for operation of BIS certification as given below and the relevant guidelines for availing such relaxations by the manufacturers, as amended from time to time, are to be referred:

- i) Shared testing resources like common facility,
- ii) Cluster based testing facility,
- iii) Sub-contracting to outside laboratories which may either be:
 - a) BIS recognised/empanelled laboratories, or
 - b) Any accredited laboratory as per ISO/IEC 17025

2.1 TEST RECORDS- The manufacturers shall maintain test records for the tests carried out (either in-house or at a sub-contracted or at shared test facility) to establish conformity of the product to the Standard for operation of licence. For the tests being subcontracted or conducted at a shared test facility, test results issued by the laboratories or test facilities, shall be made available for inspection by BIS.

3. PACKING AND MARKING - The Standard Mark as given in the Schedule of the licence shall be incorporated legibly and indelibly on each bedsheet, provided always that the material so

marked conforms to each requirement of the specification.

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

3.2 **Additional Marking requirements:** Additionally, the following shall also be marked on each bedsheet:

a) "For BIS certification details please visit www.bis.gov.in"

4. REJECTION - 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
(Recommended Levels of Control by BIS- For Guidance Only)

(1)				(2)		
Test Details				No. of Samples	Frequency	Remarks
CI.	Requirement	Test Method				
		Clause	IS Reference			
4	Manufacture					
4.1	Yarn	-	IS 171	One	Each control unit	
5.1 & Table 1	Constructional Particulars and Breaking Strength Requirements for Handloom Cotton Bed Sheets					
-do-	Count of Yarn	-	IS 3442	One	Each control unit	
-do-	Ends & Picks	-	IS 1963	One	Each control unit	
-do-	Mass	-	IS 1964/IS 745	One	Each control unit	
-do-	Breaking Strength (Warp & Weft)	-	IS 1969 (Part 1)	One	Each control unit	
5.2 & Table 2	Other Requirement for Handloom Cotton Bed Sheets					
-do-	Identification of material	-	IS 667	One	Every change in material or source of supply of material	
-do-	Dimensional change	-	IS 9	One	Each Control Unit	
-do-	Scouring loss	-	IS 1383	One	Each Control Unit	
-do-	(pH value of the aqueous extract	-	IS 1390	One	Each Control Unit	
-do-	Colour fastness to Light	-	IS/ISO 105-B01/ IS/ISO 105-B02	One	Once in 6 months Or Whenever there is change in raw	

					material.	
	Colour Fastness to Washing	-	IS/ISO 105-C10	One	Each Control Unit	Only applicable for Dyed Bedsheets
	Colour Fastness to Rubbing	-	IS/ISO 105-X12	One	Each Control Unit	-do-
	Colour Fastness to Bleaching	-	IS/ISO 105-N01	One	Each Control Unit	-do-
6	Inspection					
6.1	Free from major flaws	Annex-C	IS 745	Manufacturer shall exercise adequate in-process controls to ensure that the fabric conforms to the Requirements specified in ISS.		