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उत्पादमैनुअल

**TEXTILES — COTTON TOWELLING AND
TOWELS — SPECIFICATION**

IS 7056:2024 के अनुसार

**PRODUCT MANUAL
FOR TEXTILES — COTTON TOWELLING AND
TOWELS — SPECIFICATION
ACCORDING TO IS 7056:2024**

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 7056 : 2024
	शीर्षक Title	:	Textiles — Cotton Towelling and Towels — Specification
	संशोधनों की संख्या No. of amendments	:	NIL
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	<i>No specific requirement</i> 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	:	5 pieces 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)
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 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 7056 : 2024 with the following scope:		
	Name of the product	Textiles — Cotton Towelling and Towels	
	Type	1. Terry: Variety 1/Variety 2 2. Huck-a-Back	
	Finishing	Bleached, Dyed or Printed, Striped	
	Dimension	40 cm x 60 cm, 50 cm x 100 cm,....	

ANNEX-A

GROUPING GUIDELINES

- 1) IS 7056:2024 covers the requirements of cotton terry and huck-a-back toweling and towels; bleached, dyed, printed or striped.
- 2) Sizes in which the Towels can be supplied are specified in Table 4 of Indian Standard.
- 3) In view of above, the following grouping guidelines shall be considered for the purpose of GoL/CSoL :-
 - a) Sample for each type (cotton terry-variety 1, cotton terry-variety 2 and huck-a-back) of towels of the highest size of each finishing (Bleached, Dyed or Printed, Striped) intended to be covered in the licence shall be drawn and tested to cover all sizes for that type and variety in the scope of the licence.
 - b) If dyed or striped or printed towel samples are drawn and tested, bleached towels may also be covered in the scope of licence.
- 4) Scope of licence shall be restricted based on the manufacturing and testing facilities available.
- 5) 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/Chemicals and Identification Numbers (Where applicable)
1.	Threads per dm Fabric Constructional, cl.3.1.	Conditioning Chamber, Thread counter or Counting Glass, Flat Table
2.	Mass Fabric Constructional, cl.3.1.	<u>Method A-Conditioned Mass Method</u> Horizontal, Flat Smooth Table, Graduated Steel Scale, Balance (L.C. 0.005 g), Conditioning Chamber, Calibrated Steel Rule of at least 2 m <u>Method B- Oven-Dry Method</u> Horizontal, Flat Smooth Table, Graduated Steel Scale, Drying Oven, Balance (L.C. 0.005 g), T-Square
3.	Terry Ratio Fabric Constructional, cl.3.1.	Sample Cutting/Preparation Equipment, Conditioning Chamber, Calibrated Steel Rule
	Count of Yarn Fabric Constructional, cl.3.1.	Weighing Balance (L.C. 0.001 g), Scissor/blade/cutter, Calibrated Steel Ruler (L.C. 1 mm)
4.	Breaking load on 5.0 cm x 20cm strips (raveled strip method) Performance requirements of Fabric, cl.3.2.1	Constant Rate of Extension Tensile Testing Machine, Equipment for cutting test specimen and for fraying them to obtain the required width, Conditioning Chamber
5.	Scouring loss Performance requirements of Fabric, cl. 3.2.1	Soxhlet Apparatus, Drying Oven, Weighing Balance, Desizing Enzyme, Sodium Chloride, Caustic Soda, Acetic Acid Solution, Chloroform, Weighing Bottle, Diastase, Conical Flask, Hot Plate
6.	Dimensional change Performance requirements of Fabric, cl. 3.2.1	Watertight Tray or Container, Steel Rule, Means of Marking Reference Points, Two Pieces of Plate Glass, Sodium Hexametaphosphate, An Efficient Wetting Agent, Conditioning Chamber, Towel
7.	pH value Performance requirements of Fabric, cl. 3.2.1	Distilled or Deionized Water, Potassium Chloride Solution, Buffer Solutions, Stoppered Glass or Polypropylene flasks, Mechanical Shaker, Beakers, Rods, pH Meter with a glass electrode, Balance, Volumetric Flask, Sample Preparation/Cutting Equipment
8.	Wettability, Performance requirements of Fabric, cl. 3.2.1	Conditioning Chamber, Wettability Test Apparatus (as per cl.9. of IS 2349), Wooden/Plastic Embroidery Frame, Stop-Watch, Burette, Distilled Water (as per IS 1070)

9.	Minimum Colour fastness rating to: Light Performance requirements of Fabric, cl. 3.2.1	Blue Wool References, Humidity test control fabric, Light source, Temperature Sensor, Humidification Chamber, Covers, Colour Matching Lamps, Assessment Cabinet, Sample Mounting Card, Assessment Mask, Grey Scale for assessing change in colour
10.	Minimum Colour fastness rating to: Washing: Test 4 Performance requirements of Fabric, cl. 3.2.1	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.	Minimum Colour fastness rating to: Hypochlorite Performance requirements of Fabric, cl. 3.2.1	Glass or glazed porcelain container, Hypochlorite solutions, Sodium hypochlorite solution or Lithium hypochlorite Solution, Hydrogen peroxide solution, soap solution, Grey scale, Grade 3 water
12.	Identification of material Performance requirements of Fabric, cl. 3.2.1	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%.
13.	Whiteness Index Performance requirements of Fabric, cl. 3.2.1	Colorimeter Square standard tiles (white, blue, yellow, pink, grey and green) with the instruments; Working standard white square plate; Pressure device or any other suitable device to keep the sample steady; Source of air at 2.10 kg/cm ² ± 0.35 kg/cm ² (regulated); Sample holder with glass cover plate and clear plastic disc; and Air blender.
14.	Sizes cl 3.4	Calibrated Steel Ruler
15.	Heading cl 3.5	Calibrated Steel Ruler
16.	Sewing Thread, cl 3.6	Weighing Balance (L.C. 0.001 g), Pin or any suitable sharp item, Calibrated Steel Ruler, Conditioning Chamber
17.	Transverse Ends or End Hems cl 3.7	Calibrated Steel Ruler
18.	Side Edges cl 3.8	Calibrated Steel Ruler
19.	Stitching, cl 3.9	Magnified Pick glass, Conditioning Chamber

ANNEX C

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: the entire quantity of toweling or towels of the same type, variety, manufactured under similar conditions from the same raw material coming out of the same dyeing/bleaching/washing or finishing machine.

1.3.2 For the guidance of manufacturers in preparing the Quality Assurance Plan, recommended levels of control are given in **Table 1**.

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 licence shall be incorporated legibly and indelibly on each towel or toweling 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:** The material shall also be marked with the following additional requirement on each towel or toweling:

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

4. 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)

(1)				(2)	(3)		(4)
TEST DETAILS				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Clause	Requirements	Test Method			No. of Samples	Frequency	Remarks
		Clause	Reference				
3.1	Fabric Constructional Requirements						
3.1	Yarn	----	IS 7056 IS 171	R	Adequate inspection to ensure that the cotton yarn used is evenly spun.		
3.1 Table 1 or Table 2	Fabric Construction	----	IS 1315 IS 1963 IS 1964 Annex B	R	One	Each Control Unit	-----
3.3	Freedom from defects	----	IS 7056 IS 14466	R	Manufacturer shall exercise adequate in-process controls to ensure that the fabric conforms to the requirements of the specification		
3.2 Table 3	Fabric Performance Requirements						
SI No. i	Fibre Identification	----	IS 667	S	One	Every change in material or source of supply of material	----

SI No. ii	Breaking Load on 5.0 x 20 cm strips (raveled strip method)	----	IS 1969 (Part 1)	R	One	Each Control Unit	----
SI No. iii	Scouring Loss	----	IS 1383 (Mild method)	R	One	Each Control Unit	----
SI No. iv	Dimensional change	----	IS 2977	R	One	Each Control Unit	----
SI No. v	pH value	----	IS 1390	R	One	Each Control Unit	----
SI No. vi	Wettability	----	IS 2349	R	One	Each Control Unit	----
SI No. vii (a)	Colour Fastness Rating to Light	---	IS/ISO 105 B02	S	One	Once in 6 months Or Whenever there is change in raw material.	Only applicable for Dyed, Printed or Striped Towels
SI No. vii (b)	Colour Fastness Rating to Washing	----	IS/ISO 105-C10	R	One	Each consignment	-do-
SI No. vii (c)	Colour Fastness Rating to Hypochlorite change in colour	----	IS/ISO 105-N 01	R	One	Each consignment	-do-
3.2.2	Whiteness Index	Annex J	IS 17263	R	One	Each consignment	Only applicable for undyed or white towels
3.4 Table 4	Sizes	----	IS 7056	R	Adequate inspection to ensure that each towel conforms to the requirements of the specification		
3.5 Table 4	Heading	----	IS 7056	R	Adequate inspection to ensure that each towel conforms to the requirements of the specification		
3.6	Sewing Thread	-----	IS 1720 or IS 1315	S	One	Each Consignment	No further testing is required if the sewing threads are received with test certificate showing

							conformity to IS 1720 or IS 1315
3.7	Transverse ends or End Hems	----	IS 7056	R	Adequate inspection to ensure that each towel conforms to the requirements of the specification		
3.8	Side Edges	----	IS 7056	R	Adequate inspection to ensure that each towel conforms to the requirements of the specification		
3.9	Stitching	----	IS 7056	R	Adequate inspection to ensure that each towel conforms to the requirements of the specification		