



उत्पाद मैनुअल

Textiles — Long Cloth Made of Cotton, Manmade Fibres and Their Blends — Specification

IS 187: 2022 के अनुसार

PRODUCT MANUAL FOR Textiles — Long Cloth Made of Cotton, Manmade Fibres and Their Blends — Specification ACCORDING TO IS 187: 2022

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 187: 2022
	शीर्षक Title	:	Textiles — Long Cloth Made of Cotton, Manmade Fibres and Their Blends — Specification
	संशोधनों की संख्या No. of amendments	:	01
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	a) Yarn :- The yarn to be used in the manufacturer of Cloth, shall conform to the requirement of clause 3.1 of the specification. b) Cloth :- The cloth shall be bleached or dyed and shall conform to the requirement of clause 3.2 of the specification. Conformity of material shall be established through supplier's test certificate, or test report from BIS recognized/empanelled lab or any other NABL accredited lab or in house testing.

			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	:	Cloth of each Variety number (Variety No. 1/2) and type (Dyed/Bleached) shall be tested for incorporating the type & variety in the scope of licence. Firm to declare the Blend composition in case of production of blended fabrics. In such cases, each blended fabrics shall be tested for incorporating in the scope of licence.
c)	नमूने का परिमाण Sample Quantity	:	2 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).
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	Please refer Annex-A
4.	ननरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	Please refer Annex-B
5.	एक दिन में संभावित परीक्षण Possible tests in a day		
	a) Ends per cm & Picks per cm b) Mass c) Width d) Length e) Breaking Strength f) Weave g) Scouring loss h) pH value i) Shrinkage or Elongation j) Residual Starch k) Water Solubles l) Ash content 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.		
	लाइसेंस का दायरा /Scope of the Licence:		
	“Licence is granted to use Standard Mark as per IS 187: 2022 with the following scope:”		
	Name of the product	Textiles — Long Cloth Made of Cotton, Manmade Fibres and Their Blends	
	Type of Cloth	Dyed / Bleached	
	Variety No.	1 and/or 2	

	Any other aspect required as per the Standard	Composition of fabric (Blend composition for blended fabrics)
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ANNEX-A GROUPING GUIDELINES

For the purpose of Grant of Licence/Change in Scope of Licence, the following grouping guidelines shall apply

i) The manufacturer shall declare the type of cloth (dyed and/or bleached), the variety (1 and/or 2), and the blend composition (specifying the percentage of cotton and other man-made fibres in the blend e.g. 100% cotton or 80% cotton with 20% nylon etc.) intended to be covered in the scope of the licence.

ii) Sample of each type of cloth (dyed and/or bleached), each variety (1 and/or 2) and each blend composition intended to be covered in the scope of licence shall be tested.

Scope of licence shall be restricted based on the manufacturing and testing facilities available.

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 Equipment (INDICATIVE LIST, FOR GUIDANCE ONLY)

SI No.	Tests used in with Clause Reference	Test Equipment
1	Ends per cm & Picks per cm, Cl. 4.1, Table-1	Method A-By Traversing Thread Counter Thread Counter Low Power microscope Pointer Table with a ground glass top illuminated from below Method B- By dissection of fabric Type A clamp or Type B clamp or Type C clamp Forceps
2	Mass, Cl. 4.1, Table-1	Method A- Conditioned Mass method Horizontal flat smooth table Graduated Steel scale Balance (LC-0.005g) Arrangements for maintaining temperature of $27\pm 2^{\circ}\text{C}$ & Relative humidity of $65\pm 2\%$ Method B- Oven dry method Horizontal flat smooth table Graduated Steel scale Balance (LC-0.005g) Drying Oven (1°C) T-Square
3	Breaking strength, Cl. 4.1, Table-1	Tensile testing machine (Constant Rate of Extension) Equipment for cutting test specimens Equipment for immersing in water Grade 3 water Nonionic wetting agent Arrangements for maintaining temperature of $27\pm 2^{\circ}\text{C}$ & Relative humidity of $65\pm 2\%$
4	Length in m & Width in cm, Cl. 4.1, Table-1	Calibrated Steel Rule of length 3m and graduated in cm & mm Smooth Flat Table of atleast 4m length Arrangements for maintaining temperature of $27\pm 2^{\circ}\text{C}$ & Relative humidity of $65\pm 2\%$
5	Weave, Cl. 4.1, Table-1	Visual observation

6	Colour fastness to light, Cl. 4.2 & 7.2, Table-2, Sl. No. (i) (for Dyed fabrics only)	As per IS/ISO 105-B01 Blue wool standards 1-8 / L2-L9 Exposure rack Opaque card board or thin opaque material As per IS/ISO 105-B02 Blue wool References 1-8/L2-L9 Humidity chamber Xenon arc lamp chamber Black Standard Thermometer Grade 3 water Grey scale Colour matching lamps Assessment cabinet Assessment Masks Sample mounting card
7	Colour Fastness to washing, Cl. 4.2 & 7.2, Table-2, Sl. No. (ii) (for Dyed fabrics only)	Suitable Mechanical laundering device Balance (LC-0.01g) Mechanical stirrer Stainless Steel Balls-6 mm in diameter Hot Plate Soap Solution as per Cl 5.3 of IS/ISO 105-C10 Sodium carbonate Multifibre adjacent fabric or Two single fibre adjacent fabrics Grey scale Grade 3 water
8	Scouring Loss, Clause 4.2 & 7.2, Table – 2, Sl. No. (iii)	Method B (Mild Method) Soxhlet apparatus Drying Oven (LC-1°C) Weighing Balance (LC-0.001g) Distilled water Desizing enzyme (Diastase) Sodium chloride Caustic soda solution containing 1% Turkey red oil Grade 2 Acetic acid solution Chloroform
9	pH Value, Clause 4.2 & 7.2, Table – 2, Sl. No. (iv)	pH Meter Weighing Balance Beaker Standard Buffer Tablet Magnetic Stirrer Potassium Chloride Potassium Hydrogen Phosphate Dipotassium Hydrogen Ortho Phosphate Distilled water

		Buffer solution 4,7 &9 Glass rod
10	Shrinkage or Elongation, Clause 4.2 &7.2, Table – 2, Sl. No. (v)	Water Tight tray or Container Steel Rule in mm Means of marking reference points as per Cl. 6.3 Two pieces of Plate glass each measuring 600x600mm Distilled water Sodium Hexametaphosphate Sodium dioctyl sulphosuccinate or dodecyl benzene sodium sulphonate Arrangements for maintaining temperature of $27\pm2^{\circ}\text{C}$ & Relative humidity of $65\pm2\%$
11	Residual Starch, Clause 4.2 & 7.2, Table – 2, Sl. No. (vi)	Reflux condenser Analytical Balance (LC-0.001g) Potassium dichromate Conc. Sulphuric acid Ferrous Ammonium sulphate Sodium carbonate Phenyl anthranilic acid
12	Water Solubles, Clause 4.2 & 7.2, Table – 2, Sl. No. (vii) (For Bleached cloth only)	Arrangements for maintaining temperature of $27\pm2^{\circ}\text{C}$ & Relative humidity of $65\pm2\%$ Flat bottom flasks Water cooled condensers Hot air oven Weighing balance (LC-0.1mg) Distilled water
13	Ash content (after removal of water soluble matter), Clause 4.2 &7.2, Table – 2, Sl. No. (viii)	Silica or Porcelain crucible Muffle furnace (LC- 1°C) Drying oven Weighing bottle Desiccator (Vacuum type) Pastille press Weighing Balance
14	Blend composition (for blended fabrics), Cl 4.2 & 7.2, Table-2, Sl. No. (ix)	Sintered glass crucible Methylene chloride Ventilated oven Ammonia Formic acid Acetone Acetic acid

		Filter flask Water bath thermostatic Ethyl ether Benzyl alcohol Acetone solution Dimethyl formamide
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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 Long Cloth made from same yarn, of same type of cloth & Variety No., manufactured under similar conditions 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**.

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 bales or cases and each cloth, 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 bales or cases and each cloth:

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) Test Details				(2)	(3)		
Cl.	Requirement	Test Methods		Test equipment requirement R: required (or) S: Sub-contracting permitted	No. of Sample	Frequency	Remarks
		Clause	Reference				
3.1	Yarn		IS 187: 2022	S	1	Each Consignment	No further testing is required if accompanied with Test Certificate from supplier
3.2	Cloth		-Do-	R	Firm to have adequate in-process controls to check compliance of this parameter as given in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity		
4.1	Count of Yarn (For Guidance purpose only)	Table 1	-Do-	R	Firm to have adequate in-process controls to check compliance of this parameter as per the tolerances given in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity		
4.1	Weave	Table 1	Visual Method	R			
4.1	Ends per cm and Picks per cm	Table 1	IS 1963	R	Firm to have adequate in-process controls to check compliance of this parameter as per the tolerances given in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity		
4.1	Mass g/cm2	Table 1	IS 1964	R			
4.1	Width	Table 1	IS 1954	R	Firm to have adequate in-process controls to check compliance of this parameter as per the tolerances given in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity		
4.1	Length	Table 1	IS 1954	R			
4.1	Breaking Strength	Table 1	IS 1969 (Part 1)	R	1	Each Control unit	
4.2	Ash Content	Table 2	IS 199	R	1	Each Control unit	
4.2	Shrinkage or Elongation percent	Table 2	IS 2977	R	1	-Do-	
4.2	Scouring Loss	Table 2	IS 1383	R	1	-Do-	

4.2	pH Value	Table 2	IS 1390	R	1	-Do-	
4.2	Residual Starch	Table 2	IS 1967	R	1	-Do-	
4.2	Water Soluble Percent	Table 2	IS 3456	R	1	-Do-	
4.2	Colour Fastness to Light	Table 2	IS/ISO 105-B01 or IS/ISO 105-B02	S	1	Once in Six months	
4.2	Colour Fastness to Washing	Table 2	IS/ISO 105-C10	R	1	Once in a week	
4.2	Blend Composition (only for blended fabrics)	Table 2	IS 1564 IS 1889 (PART 4) IS 2005 IS 2176 IS 2177 IS 3416 IS 3421	S	1	Once a month	