



उत्पाद मैनुअल
IS 17879 : 2022 के अनुसार
वस्त्रादि – पालिएस्टर टेक्श्चर्ड धागे – विशिष्टि

PRODUCT MANUAL
FOR TEXTILES — POLYESTER TEXTURED
YARN — SPECIFICATION
ACCORDING TO IS 17879 : 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 17879 : 2022
	शीर्षक Title	:	Textiles — Polyester Textured Yarn — Specification
	संशोधनों की संख्या No. of amendments	:	01
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	Nil 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 Annex-A

c)	नमूने का परिमाण Sample Quantity	:	05 kg approx. in 03 bobbins 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 Identification and Description Linear Density No. of filaments Elongation at break Tenacity Shrinkage in Boiling Water Shrinkage in hot air Interlace per meter Moisture regain Elastomer Content Colour strength or colour difference Freedom from Yarn Defects Commercial Mass 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 17879 : 2022 with the following scope:		
	Name of the product	Textiles – Polyester Textured Yarn	
	Classification Based on Cross Section	Circular or Profiled [Angular (Triangular), Lobal (Trilobal), Serrated, Oval (Bean Shaped), Ribbonlike];	
	Classification Based on Cross Section Area	Solid or Hollow	
	Classification Based on Multi Component Fibres	Concentric Cover-Core, Matrix or Sheath-Core;	
	Classification Based on Lustre	- Full Dull (FD) - Semi Dull (SD)/ Semi Dull Optically Bright (SDOB)	

		- Bright (BRT)/Optically Bright (OBRT) - Super Bright (SBRT)
	Classification Based on Dyeing Method	- Disperse Dyeable [Conventional Dyeable (COD)/ Stock Dyeable (STD)/Easy Dyeable (ED)] - Cationic Dyeable (CD)/Easy Dyeable Cationic (EDCD) - Dope Dyed (DD)/Optically White (OW)
	Classification Based on Intermingling	- Non-Intermingled (NIM) - Soft Intermingled (SIM) - Low Intermingled (LIM) - Intermingled (IM) - High Intermingled (HIM)
	Linear Density Range	In Denier (if micro denier, same to be specified)
	Classification Based on Texturing Method (cl 3.16)	- Air Textured yarn - Core Textured Yarn/Elastane Covered Yarn - Draw Textured Yarn (DTY)/False Twist Textured/ Torsion Textured Yarn - Stuffer Box Crimp Yarn
	Classification Based on Shrinkage in boiling water	- Normal Shrinkage yarn - High Shrinkage yarn
	Classification Based on crimp contraction	- Normal Crimp yarn - High Crimp Yarn
	Classification Based on Coning oil pick up	- Low Oil Pick up - Medium Oil Pick up
	Additional/Optional requirements	- With/without Flame retardant - With/without Anti – microbial - With/without Ultra violet resistance

BUREAU OF INDIAN STANDARDS
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ANNEX-A

GROUPING GUIDELINES

1. Based on the classification and identification of Polyester Textured Yarn (PTY), the following grouping guidelines shall apply for Grant of Licence and Change in Scope of Licence:
 - i. One sample of PTY of any class/type shall be drawn to cover all the classes of PTY based on cross sectional view, cross sectional area, multi-component fibres.
 - ii. Separate samples based on lustre shall be drawn and tested to cover that particular lustre in the scope of licence.
 - iii. Separate samples of each dyeing method shall be drawn and tested to cover that particular variety in the scope of license.
 - iv. If Low intermingled (LIM) yarn is tested, Soft intermingled (SIM) yarn may be covered in the scope of licence. Similarly, If High intermingled (HIM) yarn is tested, Intermingled (IM) yarn may be covered in the scope of licence. Sample of non-intermingled yarn shall be drawn and tested separately to get covered in the scope of license.
 - v. One Sample of PTY of any Linear Density (except micro denier yarn) shall be drawn and tested to cover the entire linear density range intended to be covered in the scope of license. To cover micro denier, one sample of micro denier shall be tested.
 - vi. Separate samples based on Texturing Method (as per cl 3.16) shall be drawn and tested to cover that particular variety in the scope of licence.
 - vii. Normal Shrinkage yarn and High Shrinkage yarn shall be tested separately to cover in the scope of licence.
 - viii. Normal Crimp yarn and High Crimp Yarn shall be tested separately to cover in the scope of licence.
 - ix. Low Oil Pick up yarn and Medium Oil Pick up yarn shall be tested separately to cover in the scope of licence.
 - x. In case optional requirements of Flame retardant, Anti-microbial and Ultra violet resistance are intended to be covered in the scope of licence, PTY shall be tested for these requirements as applicable.
2. The firm shall declare the types of PTY intended to be covered within the scope of their licence. The scope of the Licence may be restricted based on the Manufacturing capability and testing facilities of the manufacturer.
3. During the operation of the Licence, BO shall ensure that all the Varieties covered in the Licence are 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.	Identification and Description, Cl 5.2	Microscopic and dissolution test given in IS 667: Compound Microscope (100X-500X), Dissecting Needles, glass slides, cover glasses, and cross sectioning device and laboratory reagents as per IS 667 or Staining Test as per IS 667: Mixture of dyestuffs (e.g. Shirlastain A, Detex, Fibre Stain etc.), Known Dyed Samples Or Determination of Melting Temperature as per AnnexH of IS 16481: Differential Scanning Colorimeter (DSC), Balance, capable of weighing to $\pm 10 \mu\text{g}$
2.	Nominal linear density, Cl. 6.1 & Table 3	Conditioning Chamber Weighing Balance (L.C.-0.1mg) Drying Oven ($>110^{\circ}\text{C}$, L.C.1°C) Desiccator with a suitable desiccant Sealed Containers Wrap reel
3.	Cross section, Cl. 4.1	Microscope
4.	No. of filaments, Cl. 6.1 & Table 3	Microscope Microscopic Slides Glycerol/Water Cutter Measuring Scale
5.	Average tenacity, Cl. 6.1 & Table 3	Tensile Strength Testing Machine either of CRT, CRL or CRE type, with clamps to grip the sample and means for adjusting the distance between the clamps and for application of pre- tension.
6.	Elongation, Cl. 6.1 & Table 3	-do-
7.	Shrinkage in Boiling Water (Clause 6.1 & Table 3)	Skein Winding Reel Automatic Shrinkage Tester Boiling Water Container Ventilated Oven (height shall be at least 600 mm) Distilled water or grade 3 water in accordance with IS 1070. Surfactant with wetting effect in concentration of 1 g/l
8.	Shrinkage in hot air, Cl. 6.1 & Table 3	Skein Winding Reel Length-measuring Stand Automatic Shrinkage Tester Ventilated Oven (height shall be at least 600 mm)

		Stopwatch Conditioning Chamber
9.	Crimp Contraction, Cl. 6.1 & Table 3	Skein Winding reel Steel Scale (LC- 1 mm) or Automatic measuring system of LC- 1 mm Air Oven (capable of maintaining the specified temperature within $\pm 2^{\circ}\text{C}$) Hot Water bath(capable of maintaining the specified temperature within $\pm 3^{\circ}\text{C}$) Tensioning Device Reagents: Distilled or demineralized water Stopwatch
10.	Crimp stability, Cl. 6.1 & Table 3	Skein Winding reel Steel Scale (LC- 1 mm) or Automatic measuring system of LC- 1 mm Oven or Hot Water Container Tensioning Device Reagents Stopwatch
11.	Interlace as nips per meter, Cl. 6.1 & Table 3	Automatic needle pull entanglement tester, Rapid Automatic Pin Insertion Detector and automatic yarn entanglement tester Conditioning Chamber Standard Laboratory weights form 1 to 100g Or Nips stability tester
12.	Moisture regain, Cl. 6.2 & Table 4	Precision Balance Stainless Steel Vessels Hot Air Oven Capable of Maintaining at $110 \pm 5^{\circ}\text{C}$ Forceps Wrap Reel
13.	Isophthalic acid (IPA) content, Cl. 6.2 & Table 4	PPE's like safety goggles, apron, surgical handgloves Gas chromatograph, Capillary column- 60m length and 0.53 mm ID MXT $\text{\textcircled{R}}$ - 1 Dispensette or Pipette - 2 ml, 5 ml and 10 ml Volumetric Flask - 100 ml, 500 ml Beaker, Funnel, 50ml flask, Heating Mantle AR grade Dimethyl Isophthalate(DMI), AR Grade Benzyl Alcohol, AR Grade Chloroform, AR Grade Isopropyl Titrate, AR Grade Dimethyl Suberate
14.	Coning oil pick-up, Cl. 6.2 & Table 4	Precision Balance Stainless Steel Vessels Conical Flasks with stopper and Plastic Beaker Forceps, Tongs Drying Oven Plastic Tray/Bowls Petroleum Ether OR

		Nuclear Magnetic Resonance (NMR)
15.	Phosphorus content (For flame retardant yarn only), Cl. 6.2 & Table 4	10 Percent Sulfuric Acid Solution (2 litres)- Sulfuric acid 2000 ml Beaker Demineralized Water 1000 ml flask 5 Percent Ammonium Molybdate Solution (500 ml)- Ammonium Molybdate 500 ml Volumetric Flask 0.5 Percent Hydroquinone Solution (500 ml)- Hydroquinone 1N sulfuric acid 500 ml volumetric flask 20 Percent Sodium Sulphite Solution (500 ml)- Sodium Sulphite 500 ml volumetric flask Demineralized Water Zinc Oxide Solution (200 ml)- Zinc Oxide 10 percent sulphuric acid solution Whatman Filter Paper No.1 Di-Sodium Hydrogen Ortho Phosphate Dihydrate Weighing Balance (LC-1mg) Hot Plate Silica Crucible Muffle Furnace Pipettes-10ml and 05ml UV Spectro-photometer
16.	Ultraviolet resistance, 500 h Percent retained strength, (For UV resistant yarn only), Cl. 6.2 & Table 4	Conditioning Chamber UV Apparatus equipped with fluorescent UVB Lamp as per Annex H of IS 17262:2022 Tensile Testing m/c
17.	Anti-microbial activity value, (For anti-microbial yarn only), Cl. 6.2 & Table 4	Apparatus/Equipments as per IS/ISO 20743: Spectrophotometer Incubator Water bath Mixer Stomacher Clean Bench Washing Machine Humidity chamber Luminescence Photometer Printing Apparatus Refrigerator Freezer Balance Filtering Apparatus Pipette, Vials, Glass Bottles Petri Dishes Glass Rod Anti Bumping Granules

		Erlenmeyer Flask Cutting template Disposable Plastic Bag Tweezers Stainless Steel Cylinders Metal Wire Basket Aluminium Foil Reciprocal Incubation Shaker
18.	Elastomer Content, (For elastane covered yarns), Cl 6.2 & Table 4	Wrap reel Weighing Balance Scissor
19.	Colour strength with reference to standard yarn (For dope dyed yarn only) , Cl. 6.2 & Table 4	Card Winding Machine with uniform tension control system Scanning Spectrometer Card (Aluminium) Clean Cotton Cloth
20.	Colour difference with reference to standard yarn, measured as ΔE , (For dope dyed yarns only), Cl. 6.2 & Table 4	Card Winding Machine with uniform tension control system Scanning Spectrometer Card (Aluminium) Clean Cotton Cloth
21.	Freedom from Yarn Defects. Cl. 6.3	Packing Table UV Light (Clause 6.3.4 and 6.3.7) Vernier Calipers Eye Piece Lens (Clause 5.3.15) Bottom weights (1g to 15g) Stop watch
22.	Lustre/Brightness, Cl. 6.4	Analytical Balance — Capable of weighing to 0.1 mg. Ultraviolet Visible Spectrophotometer Silica Gel Flask Volumetric Muffle Furnace — Capable of maintaining temperature 700°C to 800°C and accepting 7 to 8 cm dishes Tongs Hot Plate — Capable of being heated to 250-300°C Measuring Cylinder — 10 to 50 ml capacity Glass Beaker Reagents: Hydrogen Peroxide, Sulfuric Acid, Nitric Acid, Ammonium Sulphate (AR/GR grade) and TiO ₂ — With known purity
23.	Colour Fastness Properties of Dyed PTY, Cl. 6.5	For Colour Fastness to Daylight (as per IS/ISO 105-B01:2014) Source of Daylight Reference materials Exposure Rack Opaque Cardboard Grey Scale for Measuring change in colour Or For Colour Fastness to artificial light (as per IS/ISO 105-

		B02 : 2014) Reference materials Humidity test control fabric Light Source (xenon arc lamp) black-standard thermometer or a black-panel thermometer Humidity chamber Covers Colour matching lamps Assessment cabinet Sample mounting card Assessment mask For Colour Fastness to Washing (as per IS/ISO 105-C10 :2006) Suitable Mechanical Laundering Device Weighing Balance with LC 0.01grams Mechanical Stirrer Non-Corrodible (Stainless Steel) Balls of 6 mm diameter Hot plate Polyester & Cotton Fabric Standard Soap & Anhydrous Sodium Carbonate Adjacent Fabric (Multifibre and Two Single Fibre) Non-Dyeable Fabric Machine Grey Scale for Colour & Staining Viewing Cabinet For Colour Fastness to perspiration as per IS/ISO 105-E04 : 2013) Test Devices as per Clause 4.1 of IS/ISO 105-E04 Oven maintained at $(37 \pm 2)^{\circ}\text{C}$ Alkaline Solution as per Clause 4.3 of IS/ISO 105 E04 Acid Solution as per Clause 4.4 of IS/ISO 105-E04 Adjacent Fabrics as per Clause 4.5 of IS/ISO 105-E04 Non-Dyeable Fabric Grey Scale for Assessing Change in Colour & Staining Spectrophotometer or Colorimeter For Colour Fastness to Rubbing as per IS/ISO 105-X12:2016) Cotton Rubbing Cloth Soft-back waterproof abrasive paper Grey Scale for Staining Crock meter Dry Heat Treatments as per IS 4636:1988 Heating Device Adjacent fabric (Multifibre adjacent fabric or Single fibre adjacent fabric) Grey Scale
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24.	Commercial Mass, Cl. 6.6	Balance/Weighing Instruments (LC-.1mg) Air-tight vessels/ Desiccator Oven Laboratory reagents for Cleaning Specimens
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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: Entire quantity of polyester Textured yarn of each variety manufactured under similar conditions in a single 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 each carton/pallet of polyester textured yarn, 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 carton/pallet of polyester textured yarn:

- a) “For BIS certification details please visit www.bis.gov.in”
- b) *“The yarn manufacturer shall mark on the pallets/cartons whether the yarn is Disperse Dyeable[Conventional Dyeable (COD)/Stock Dyeable(STD)/Easy Dyeable (ED)] /Cationic Dyeable or Easy Dyeable Cationic Dyeable (EDCD)/Dope Dyed (DD) or Optically White (OW) for the guidance of the yarn/fabric manufacturers”*

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 and the applicable Quality Control Order. Appropriate records of such rejection shall be maintained.

TABLE 1
(ONLY FOR GUIDANCE PURPOSE)

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or)S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Methods Clause Reference			No. of Sample	Frequency	Remarks
5.2	Identification and Description		IS 667, Annex J of IS 16481	S	06 Bobbins	Each month	No testing is required if raw material is ISI marked
6.1, Table 3	Constructional and Physical Requirements of Polyester Textured Yarn (PTY)						
i)	Nominal linear density		IS 7703 (Part 1)	R	06 Bobbins	Each control unit	Samples of each type and variety to be tested
ii)	Cross section	4.1	IS 17879	R	06 Bobbins	Each control unit	-do-
iii)	No. of filaments (rounded off to whole number)	6.1	IS 17879	R	06 Bobbins	Each control unit	-do-
iv)	Average tenacity	6.1	IS 7703 (Part 2)	R	06 Bobbins	Each control unit	-do-
v)	Elongation	6.1	IS 7703 (Part 2)	R	06 Bobbins	Each control unit	-do-
vi)	Shrinkage in Boiling Water	6.1	IS 17087	R	06 Bobbins	Each control unit	-do-
vii)	Shrinkage in Hot Air	6.1	IS 17088	R	06 Bobbins	Each control unit	-do-

viii)	Crimp contraction	6.1	IS 17879 (Annex C)	R	06 Bobbins	Each control unit	-do-
ix)	Crimp stability	6.1	IS 17879 (Annex C)	R	06 Bobbins	Each control unit	-do-
x)	Interlace as nips per meter	6.1	IS 17879 (Annex D)	R	06 Bobbins	Each control unit	-do-
6.2, Table 4	Chemical Requirements of Polyester Textured Yarn (PTY)						Either of the requirements indicated at viii) and ix) of Table 4 needs to be complied with
i)	Moisture regain, percent, at equilibrium condition	6.2	IS 17879	R	06 Bobbins	Each control unit	Samples of each type and variety to be tested
ii)	Isophthalic acid (IPA) content	6.2	IS 16481	S	06 Bobbins	Each month	No testing is required if raw material is ISI marked
iii)	Coning oil pick-up	6.2	IS 17879	R	06 Bobbins	Each control unit	-do-
iv)	Phosphorus content, (For fire retardant yarn only)	6.2	IS 17879	R	06 Bobbins	Each control unit	-do-
v)	Ultraviolet resistance, 500 h Percent retained strength (For UV resistant yarn only)	6.2	IS 13162 (Part 2)	S	06 Bobbins	Once a month	-do-
vi)	Anti-microbial activity value, Min (For anti- microbial yarn only)	6.2	IS/ISO 20743	S	06 Bobbins	Once a month	-do-
vii)	Elastomer Content (For Elastane Covered Yarn)		IS 17879 (Annex H)	R	06 Bobbins	Each control unit	-do
viii)	Colour strength with reference to standard yarn, Percent	6.2	IS 17879	R	06 Bobbins	Each control unit	Samples of each type and variety to be tested but Either of the requirements indicated at viii) and ix) needs to be complied with
ix)	Colour difference with reference to standard yarn, measured as ΔE , Max (For dope dyed yarns only)	6.2	IS 17879	R	06 Bobbins	Each control unit	-do-

6.3	Freedom from yarn defects	6.3	IS 17879	R	All bobbins	-do-	Samples of each type and variety to be tested
6.4	Lustre/Brightness	Annex G	IS 17262	S	06 Bobbins	Once a month	No testing is required if raw material is ISI marked
6.5	Colour Fastness Properties						
i)	Light Change in colour		IS/ISO 105-B01 or IS/ISO 105-B02	S	03	Once in six months	Samples of each type and variety to be drawn and tested
ii)	Washing test a) Change in colour b) Staining		IS/ISO 105-C10	R	03	Once a week	-do-
iii)	Rubbing a) Dry b) Wet		IS/ISO 105-X12	R	03	Once a week	-do-
iv)	Perspiration (acidic and alkaline) a) Change in colour b) Staining		IS/ISO 105-E04	R	03	Once a week	-do-
v)	Dry Heat Treatment		IS 4636	R	03	Once a week	-do-
6.6	Commercial Mass		IS 7703 (Part 3)	R	01 Bobbin per position	Each control unit	-do-