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उत्पाद मैनुअल

**Textiles - Water Proof Multipurpose Rain
Poncho with Convertibility as Bivouac-Specification
IS 17286: 2019 के अनुसार**

**PRODUCT MANUAL
FOR Textiles - Water Proof Multipurpose Rain
Poncho with Convertibility as Bivouac-Specification
ACCORDING TO IS 17286: 2019**

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 17286: 2019
	शीर्षक Title	:	TEXTILES - WATER PROOF MULTIPURPOSE RAIN PONCHO WITH CONVERTIBILITY AS BIVOUAC- SPECIFICATION
	संशोधनों की संख्या No. of amendments	:	NIL
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	Eyelets, snap fasteners, slide fasteners, polyamide sewing threads, hooks & Loop fasteners shall be conforming to the requirements specified in clause 3.2.10, 3.2.10, 3.3, 4 & 6.5 respectively. Conformity of materials to the requirement of the specification may be established through either of the following or a combination of the same: Test report from a laboratory recognized by the Bureau/ Government laboratories empaneled by the Bureau / NABL Accredited Laboratories;

			Material supplier's Test Certificate; In-house factory test report. 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	:	NA
c)	नमूने का परिमाण Sample Quantity	:	2 Complete set of Poncho with Pouch + Cord: 2 Metres + Polyamide Sewing Thread: 5-6 Metres + Polyamide Tape: 2 Metres + Eylets set: 6 Pieces Each + Snap Fastener: 6 Pieces + Slide Fasteners (Zipper): 6 Pieces Each + Hook & Loop fasteners: 5 Metres 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	:	Width of PU coated fabric 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-A
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	Please refer to Annex-B
5.	एक दिन में संभावित परीक्षण Possible tests in a day		
	All tests are possible to be carried out in a day except the following, provided that the pre-conditioned samples are available: i. Colour fastness to light ii. Resistance to accelerated ageing at 70°C ± 1°C for 168 h in hot air circulating oven iii. Resistance to damage by flexing (after 100,000 cycle) iv. Moisture vapour transmission v. Dimensional change due to relaxation, length wise directions 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 17286: 2019 with the following scope:	
	Name of the product	Textiles-Water Proof Multipurpose Rain Poncho with Convertibility as Bivouac

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

ANNEX-A

LIST OF TEST EQUIPMENTS

(INDICATIVE LIST, FOR GUIDANCE ONLY)

Sr. No.	Tests Used in with Clause Reference	Test Equipment / Chemical
1.	Nature of fibre / filament, Cl.6.1, Table-1 (i) & Cl. 6.2, Table-2 (i) & Cl. 6.3, Table-3 (i)	i) For Preliminary Identification - Alcohol 92%, - Phloroglucinol, - Hydrochloric acid, ii) For Physical Inspection - Compound Microscope (100X-500X), - Dissecting Needles, - Glass Slides, - Forceps, - Burner, - Stop watch, - Cover Glasses, - Cross-sectioning device, iii) By Staining Test or Dissolution test - Mixture of dyestuffs (e.g. Zinc Chlor-Iodide, Detex, Shirlastain A etc), known dyed samples Or - Sulphur acid 80%, - Cuprammonium Hydroxide, - NaOH 5%, - Digital weighing Balance (LC $\pm 10\mu\text{g}$),
2.	Nature of coating, Cl.6.1, Table-1 (ii)	- Digital weighing Balance, - Hot plate, - Glacial acetic acid, - p-dimethyamino benzaldehyde, - Stop watch
3.	Width, cm, Cl.6.1, Table-1 (iii) & Cl. 6.3, Table-3 (iv)	- Graduated calibrated rule/ Steel Scale, - Measuring Table (as per Cl 6.2 of IS 1954), - Conditioning Chamber
4.	End/dm & picks/dm, Cl.6.1, Table-1 (iv & v) & Cl. 6.3, Table-3 (ii & iii)	- Thread Density Counter (Pick Glass) or Counting Glass, - Flat Table, - Steel Scale, - Conditioning Chamber
5.	Mass (Single layer), Cl.6.1, Table-1(vi) & Cl. 6.2, Table-2 (iii) & Cl.6.3, Table-3 (v)	<u>Method A-Conditioned Mass Method</u> - Horizontal Flat Smooth Table, - Graduated Steel Scale, - Weighing Balance (L.C. 0.005 g), - Equipment for cutting test pieces, - Conditioning Chamber, <u>Method B- Oven-Dry Method</u> - Horizontal Flat Smooth Table,

		- Graduated Steel Scale, - Drying Oven (105 to 110°C), - Weighing Balance (LC 0.005g), - T-Square, - Equipment for cutting test pieces i.e sharp scissors or blade
6.	Mass of de-proofed fabric, g/m ² , Cl. 6.1, Table-1(vii)	- De-proofing solvent like tetrahydrofuran, dichloromethane, methylene chloride etc. <u>Method A-Conditioned Mass Method</u> - Horizontal Flat Smooth Table, - Graduated Steel Scale, - Weighing Balance (L.C. 0.005 g), - Equipment for cutting test pieces, - Conditioning Chamber, <u>Method B- Oven-Dry Method</u> - Horizontal Flat Smooth Table, - Graduated Steel Scale, - Drying Oven (105 to 110°C), - Weighing Balance (LC 0.005g), - T-Square, - Equipment for cutting test pieces i.e sharp scissors or blade
7.	Breaking strength (strip test): a) Warp-wise b) Weft-wise, Cl.6.1,Table-1(viii)	- Constant rate of extension (CRE) Tensile Testing Machine (As per cl. 5.1 of IS 7016 Part 2), - Clamping device - Equipment for cutting test pieces and fraying them down to the required width, - Stop watch, - Digimatic Calliper, - Steel Scale, - Arrangement for conditioning the sample
8.	Tearing strength (Method A-1): a) Warp-wise b) Weft-wise, Cl. 6.1,Table-1(ix)	- Constant rate of extension (CRE) tensile testing machine with autographic recorder as per Cl 4.1 of IS 7016 (Part 3/1), - Clamping device, - Equipment for cutting test pieces, - Steel Scale, - Arrangement for conditioning the sample
9.	Colour fastness to washing, Test C (3): a) Change in colour b) Staining on adjacent fabric, Cl. 6.1, Table-1 (x) & Cl. 6.2, Table-2 (v) & Cl. 6.3, Table-3 (vi)	- Suitable mechanical laundering device (Launderometer), - Balance with LC 0.01g, - Mechanical stirrer, - Non-corrodible (Stainless) steel balls, 6 mm dia, - Hot-plate (Means of heating the soap solution), - Soap, - Sodium Carbonate, Anhydrous, - Soap Solution, - Grade 3 water, - Adjacent Fabric (Multifibre adjacent fabric & Two Single Fibre adjacent fabric), - Non-dyeable Fabric (e.g. polypropylene), - Grey scales for Colour & Staining or Spectrophotometer, - Viewing Cabinet, - Conditioning Chamber

10.	Colour fastness to rubbing, a) Dry b) Wet Cl. 6.1, Table-1(xi)	- Apparatus (Crockmeter) as per 4.1 of IS/ISO 105-X12, - Cotton rubbing cloth, - Soft-back waterproof abrasive paper, - Grey scales for staining, - Distilled water, - Rubber band, - Viewing Cabinet
11.	Colour fastness to light, Cl. 6.1, Table-1(xii) & Cl. 6.2, Table-2 (vi) & Cl. 6.3, Table-3 (vii)	- Laboratory exposure devices (Weather-O-Meter/ Xenon Arc Light Tester) as per Cl. 5.2 of IS/ISO 105- B02, - Light Source (Xenon arc lamp), - Thermometer (Black-Standard Thermometer (BST) / Black-Panel Thermometer), - Humidity chamber, - Covers, - Colour Matching Lamps, - Assessment cabinet, - Sample mounting card, - Assessment mask, - Grey scale for assessing change in Colour, - Blue wool reference materials (Cl 5.1) - Humidity test control fabric, - Grade 3 water (Minimum) in accordance with ISO 3696 to maintain humidity
12.	Dimensional change due to relaxation, percent a) Warp-wise b) Weft-wise Cl. 6.1, Table-1(xiii)	- Watertight Tray or Container with a glass plate & draining arrangement, - Steel Rule/Scale (Ggraduated in mm), - Means of Marking Reference Points as specified in 4.3 of IS 10099, - Two Pieces of Plate Glass (each measuring at least 600 × 600 mm), - Stop watch - Hygrometer, - Weighing Balance - Sodium Hexametaphosphate (commercially available as 'Calgon'), - Water (of zero hardness or of not more than 50 ppm of CaCo3 hardness) - An Efficient Wetting Agent (e.g. sodium di-octyl sulphosuccinate or dodecyl benzene sodium sulphonate), - Conditioning Chamber, - Towel, - Equipment for cutting the test pieces
13.	Resistance to accelerated ageing at 70°C ± 1°C for 168 h in hot air circulating oven, Cl. 6.1, Table-1(xiv)	- Air circulating oven (100°C ± 1°C) as per Cl. 4.2.1 of IS 7016: Part 8, - Thermometer (LC ± 1°C), - Weighing Balance (LC 0.001g), - Ruler or other length-measuring device (LC ± 0.5 mm), - Desiccator, - Stop watch, - Equipment for cutting the test pieces, - Conditioning Chamber

14.	Resistance to low temperature $[(-)30 \pm 2^{\circ}\text{C}]$ for 6 h, Cl. 6.1, Table-1(xv)	- Climatic cold chamber ($\text{LC} \pm 1^{\circ}\text{C}$), - Stop watch, - Bending jig, - Steel Rule, graduated in mm, - Glass plates (125mm×175 mm), - Gloves, - Equipment for cutting the test pieces, - Conditioning Chamber
15.	Resistance to damage by flexing (after 100,000 cycle), Cl. 6.1, Table-1(xvi)	(A) Method A - De-mattia method - De-mattia Flex-testing machine (One of the grips of each pair is capable of a reciprocating motion in a vertical plane with a stroke length of $(57 +g.5)$ mm and a frequency of $5,0 \text{ Hz} \pm 0,2 \text{ Hz.}$), - Scale, - Conditioning chamber, - Magnify glass (X10) or Stereo Microscope (X10), (B) Method B - Schildknecht method - Schildknecht Flex-testing machine as per clause 4.2.1 of IS 7016 (Part 4) - Hose clips or tool clips, $10 \text{ mm} \pm 1 \text{ mm}$ - Scale, - Conditioning chamber, - Magnify glass (X10) or Stereo Microscope (X10), (C) Method C - Crumple/flex method - Crumple/flex testing machine as per clause 5.2 of IS 7016 (Part 4), - Scale, - Conditioning chamber, - Magnify glass (X10) or Stereo Microscope (X10)
16.	Blocking, Cl.6.1, Table-1 (xvii)	- Glass plates, size approx. 150 mm x 150 mm x 3 mm. - Weight-piece (5.0 kg) - Air circulating oven ($\text{LC} \pm 2^{\circ}\text{C}$) - Timer, - Scale, - Conditioning chamber
17.	pH value of aqueous extract (Cold method), Cl. 6.1, Table-1(xviii) & Cl. 6.2, Table-2 (viii)	- Distilled or deionized water of at least grade 3 as per ISO 3696, having pH 5.0-7.5, - Potassium chloride solution-AR grade (0.1 mol/l), - Buffer solutions- AR Grade (pH 4, 7 or 9) which may be prepared as specified in Annex A of IS 1390 - Stoppered glass or polypropylene flasks, (Chemically resistant), - Mechanical shaker, - Beaker of chemically resistant, with a capacity of 150 ml - Rods, - Thermometer,

		- pH meter with glass electrode (LC 0.1 pH) - Weighing Balance (LC 0.01g), - Volumetric flask of grade A quality (1 ltr), - Equipment for cutting the test pieces
18.	Water repellency (face side-uncoated), spray rating, Min, Cl. 6.1, Table-1(xix)	- Spray Device (Water vapour absorption tester) having funnel, Metal spray nozzle, Stand, Specimen Holder, - Water (Distilled or Fully Deionized), - Scale, - Thermometer, - Cylinder-Graduated (250 ml), Class B, - Beaker, - Stop watch - Conditioning chamber, - Equipment for cutting the test pieces
19.	Hydrostatic pressure head test, Cl. 6.1, Table-1(xx)	Method A - Hydrostatic Head Tester as specified in Cl.4.1 with Test piece supporting plate, Pressure gauge - Stop watch - Conditioning Chamber Method B - Open mouthed water penetration test vessel with test head allowing pressure up to 19.6 kPa connected with suitable manometer/pressure gauge - Stop watch - Conditioning Chamber
20.	Bundesmann-shower test: a) Amount of water absorption, Max, percent) b) Amount of water penetration, ml c) Wetting of inner surface, Cl. 6.1, Table-1(xxi)	- Bundesmann type apparatus as specified in Cl 7.1 and Annex. A of IS 392 - Equipment for Cutting Specimens of 140 mm Dia. as specified in Cl 7.2 of IS 392 - Mechanical Shaker, as specified in Cl 7.3 of IS 392 - Airtight Containers - Weighing Balance (LC 0.01g), - Thermometer, - pH meter, - Stop watch - Conditioning Chamber
21.	Moisture vapour transmission, mg/cm ² /h, Min, Cl. 6.1, Table-1(xxii)	- Moisture Vapour Transmission Rate Tester having assembled glass dishes and turntable machine - Burette, - Water, - Weighing Balance (LC 0.001g), - Stop watch, - Cover ring, - Adhesive tape, - Thermo-Hydrometer, - Conditioning Chamber, - Equipment for cutting the test pieces

22.	Bending length, cm, Max: a) Warp-wise b) Weft-wise Cl. 6.1, Table-1(xxiii)	- Stiffness tester with horizontal platform, Indicator and Scale as specified in Cl 7.1 of IS 6490 - Movable Specimen Slide, - Steel Scale - Weighing Balance, - Conditioning Chamber, - Equipment for cutting the test pieces
23.	Separation of polyurethane (PU) film, Cl. 6.1, Table-1(xxiii)	- Scale, - Magnify glass
24.	Breaking strength (200mm gauge length), Cl. 6.2, Table-2 (iv)	- CRE Machine (Tensile-Testing Machine) as specified in Cl. 6.1 IS 1969 (Part 1) - Equipment for cutting test specimens and for fraying them to obtain the required width. - Equipment, in which test specimens can be immersed in water preparatory to wet testing, - Grade 3 water, in accordance with ISO 3696 for wetting test specimens, - Nonionic wetting agent, - Steel Scale - Conditioning Chamber - Equipment for cutting test pieces
25.	Dimensions of various components	Vernier calliper, Measuring SS Scale, Measuring tape, thickness gauge, Inspection table, Humidity Chamber, Scissor, Knife
26.	Conditioning (Various clauses)	Air Conditioner or Conditioning Chamber to condition samples at $27\pm 2^{\circ}\text{C}$ and $65\pm 2\%$, Hygrometer, Thermometer

ANNEX-B

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 product (Poncho + pouch) manufactured from same consignment of raw material 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 each poncho, 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 poncho:

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	Material & Manufacture	3	IS 17286	S	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	Stitching	4	-do-	R			
5	Freedom from Defect	5	-do-	R			
6.1	Requirements of PU Coated Fabric for ‘Poncho’ and ‘Pouch’						
Cl.6.1, Table-1 (i)	Nature of fibre / filament	--	IS 667	S	One	Once a month Or Whenever there is change in raw material or supplier	
Cl.6.1, Table-1 (ii)	Nature of coating	--	Annex B	R	One	Each control Unit	
Cl.6.1, Table-1 (iii)	Width	--	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.		
Cl.6.1, Table-1 (iv)	End/dm	--	IS 1963	R			

Cl.6.1, Table-1 (v)	Picks/dm	--	IS 1963	R			
Cl.6.1, Table-1 (vi)	Mass (Single layer)	--	IS 1964	R	One	Each control Unit	----do-----
Cl.6.1, Table-1(vii)	Mass of de-proofed fabric	Annex C	IS 17286 & IS 1964	R	One	Each control Unit	----do-----
Cl.6.1, Table-1 (viii)	Breaking strength (strip test) (5 × 20 cm fabric between grips): a) Warp-wise b) Weft-wise	--	IS 7016 (Part 2)	R	One	Each control Unit	
Cl.6.1, Table-1(ix)	Tearing strength (Method A-1): a) Warp-wise b) Weft-wise	--	IS 7016 (Part 3/1)	R	One	Each control Unit	
Cl. 6.1, Table-1 (x)	Colour fastness to washing: a) Change in colour b) Staining on adjacent fabric	--	IS/ISO 105-C10	R	One	Each control Unit	
Cl. 6.1, Table-1(xi)	Colour fastness to rubbing, a) Dry b) Wet	--	IS/ISO 105-X12	R	One	Each control Unit	
Cl. 6.1, Table-1(xii)	Colour fastness to light	--	IS/ISO 105-B02	S	One	Once in 6 months Or Whenever there is change in raw material or supplier	
Cl. 6.1, Table-1(xiii)	Dimensional change due to relaxation a) Warp-wise b) Weft-wise	--	IS 2977	R	One	Once a week	

Cl. 6.1, Table-1(xiv)	Resistance to accelerated ageing at 70°C ± 1°C for 168 h in hot air circulating oven		IS 7016 (Part 8)	S	One	Once in a month	
Cl. 6.1, Table-1(xv)	Resistance to low temperature [(-)30 ± 2°C] for 6 h		IS 7016 (Part 10)	S	One	Once in a month	
Cl. 6.1, Table-1(xvi)	Resistance to damage by flexing (after 100,000 cycle)		IS 7016 (Part 4)	S	One	Once in three month or whenever there is change in raw material or supplier	
Cl. 6.1, Table-1 (xvii)	Blocking		IS 7016 (Part 9)	R	One	Once in a week	
Cl. 6.1, Table-1(xviii)	pH value of aqueous extract (Cold method)		IS 1390	R	One	Each Control Unit	
Cl. 6.1, Table-1(xix)	Water repellency (face side- uncoated), spray rating		IS 390	R	One	Once in a week	
Cl. 6.1, Table-1(xx)	Hydrostatic pressure head test (Water column height at 60 cm for 60 min), (face side- uncoated)		IS 7016 (Part 7)	S	One	Once in a month or whenever there is change in raw material or supplier	
Cl. 6.1, Table-1(xxi)	Bundesmann-shower test: a) Amount of water absorption b) Amount of water penetration, ml c) Wetting of inner surface		IS 392	S	One	Once in a month or whenever there is change in raw material or supplier	

Cl. 6.1, Table-1(xxii)	Moisture vapour transmission	Annex F	IS 16390	R	One	Once in a week	
Cl. 6.1, Table-1(xxiii)	Bending length a) Warp-wise b) Weft-wise	IS 6490		R	One	Each control unit	
Cl. 6.1, Table-1(xxiii)	Separation of polyurethane (PU) film		IS 17286	R	One	Each control unit	
Clause 6.2 REQUIREMENTS OF CORD							
Cl. 6.2, Table-2 (i)	Nature of fibre / filament	--	IS 667	S	One	Each consignment	
Cl. 6.2, Table-2 (ii)	Length		IS 1954	R	One	Each consignment	
Cl. 6.2, Table-2 (iii)	Mass per linear metre		IS 1964	R	One	Each consignment	
Cl. 6.2, Table-2 (iv)	Breaking strength (200mm gauge length)		IS 1969 (Part 1)	S	One	Each consignment	
Cl. 6.2, Table-2 (v)	Colour fastness to washing, Test a) Change in colour b) Staining on adjacent fabric		IS/ISO 105-C10	S	One	Each consignment	
Cl. 6.2, Table-2 (vi)	Colour fastness to light		IS/ISO 105-B02	S	One	Each consignment	
Cl. 6.2, Table-2 (vii)	Dimensional change due to relaxation, length wise directions		IS 2977	R	One	Each consignment	
Cl. 6.2, Table-	pH value of aqueous extract (Cold method)		IS 1390	R	One	Each consignment	

2 (viii)							
Clause 6.3	REQUIREMENTS OF WIDE POLYAMIDE TAPE (25 ± 1 MM)						
Cl. 6.3, Table-3 (i)	Nature of fibre / filament		IS 667	S	One	Once a month Or Whenever there is change in raw material or supplier	
Cl. 6.3, Table-3 (ii)	Number of ends in full width		IS 1963	R	One	Each control Unit	
Cl. 6.3, Table-3 (iii)	Number of picks/dm		IS 1963	R	One	Each control Unit	
Cl. 6.3, Table-3 (iv)	Width, cm		IS 1954	R	One	Each control Unit	
Cl. 6.3, Table-3 (v)	Mass per linear metre		IS 1964	R	One	Each control Unit	
Cl. 6.3, Table-3 (vi)	Colour fastness to washing: a) Change in colour b) Staining on adjacent fabric		IS/ISO 105-C10	R	One	Each control Unit	
Cl. 6.3, Table-3 (vii)	Colour fastness to light		IS/ISO 105-B02	S	One	Once in 6 months Or Whenever there is change in raw material or supplier	