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SPECIFICATION No. IND/TC/2666(a)
SUPERSEDES SPECIFICATION NO. IND/TC/2666
DRAWING PLATE ATTACHED : NIL

Re-Seated vide
DC No. 8386-TC
Dt. 04-6-2002

GOVERNMENT OF INDIA
MINISTRY OF DEFENCE
DGQA ORGANISATION

SPECIFICATION

FOR

TAPE NYLON TUBULAR 25.4 mm WHITE

ISSUED BY

CONTROLLERATE OF QUALITY ASSURANCE (TEXTILES & CLOTHING)
DIRECTORATE GENERAL OF QUALITY ASSURANCE
DEPARTMENT OF DEFENCE PRODUCTION & SUPPLIES,
MINISTRY OF DEFENCE
POST BOX NO. 294
KANPUR - 208001

YEAR 2002

PRICE: Rs. 10/-

Received vide CQA(T&C) Kanpur letter No.-
G/8003/C2/TC-3 Dt - 29/04/09.

for CONTROLLER,
Controllerate of Quality Assurance
Textiles & Clothing, Kanpur

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SPECIFICATION No. IND/TC/26660

RECORD OF AMENDMENTS

Amendment Sl. No.	Date	Details of Amendment	Amendment Carried out by & Date

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Textiles & Clothing, Kanpur

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for CONTROLLER,
Controllerate of Quality Assurance
Textiles & Clothing, Kanpur

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SPECIFICATION No. IND/TC/26

0. FOREWORD

0.1 This specification has been prepared by the Controllerate of Quality Assurance (Textiles & Clothing), Kanpur on behalf of Director General of Quality Assurance, New Delhi.

0.2 This specification supersedes specification No. IND/TC/2666.

0.3 This specification shall be used for tender enquiry, procurement, manufacture and quality assurance of the item covered by this specification.

0.4 The Quality Assurance Authority for this store is the Controller, Controllerate of Quality Assurance (Textiles & Clothing), Post Box No.294, Kanpur. Enquiries regarding this specification relating to technical or any other contractual conditions shall be referred to Quality Assurance Authority named in the tender or contract.

0.5 This specification is a live document and is, therefore, likely to undergo changes. Therefore, a specification issued holds good only for the supply order/AI for which it is issued.

0.6 Copies of any other reference documents such as specifications/drawings/instructions/guides etc can be obtained from the address as shown below :-

Specification	Source
I.S. Series	Director General Bureau of Indian Standards, Manak Bhawan 9, Bahadur Shah Zafar Marg NEW DELHI - 110 002 or his regional offices
IND/GS/Series JSS & supply schedule CQA(GS)/SS	The Controller Controllerate of Quality Assurance (GS), P.B.No. 127, KANPUR-208001
IND/TC/Series	The Controller Controllerate of Quality Assurance (Textiles and Clothing), Post Box No. 294, KANPUR - 208 001 or their regional Estts. 1. Sr. Quality Assurance Officer SQAE(GS), DGQA Complex Lal Bahadur Shastri Marg Vikhroli, MUMBAI - 400 083 2. Sr. Quality Assurance Officer SQAE(GS), Hastings KOLKATA - 700 022

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3. Sr. Quality Assurance Officer
SQAE(GS), P.B.No. 307
KANPUR - 208 004

4. Sr. Quality Assurance Officer
SQAE(GS), DGQA Complex
Pazhavanthangal
CHENNAI - 600 114

5. Sr. Quality Assurance Officer
SQAE(GS), Anand Parbat
NEW DELHI - 110 005

6. Sr. Quality Assurance Officer
SQAE(GS), SHAHJAHANPUR - 242 001

1. SCOPE

1.1 This specification covers the requirements of Tape Nylon Tubular 25.4 mm white DS Cat No. NTV and provides guidance to contractors/suppliers, manufacturers, Quality Assurance agencies and Stockists/Indentors etc.

2. RELATED SPECIFICATIONS AND DOCUMENTS

2.1 Reference is made in this specification to -

i) IS:1315-1977 Method for determination of Liner density of yarn spun on cotton system (First Revision)

ii) IS:1390-1983 Method for determination of pH value of aqueous extracts of textiles materials.

iii) IS:1954-1990 Method for determination of length & width of fabrics (Second Revision)

iv) IS:1963-1981 Method for determination of ends and picks per unit length in woven fabric (Second Revision)

v) IS:1969-1985 Method for determination of breaking load and elongation at break of woven textile fabric (Second Revision)

vi) IS:2500(Pt I)-1992 Sampling inspection procedure Pt 1 Attribute sampling plans indexed by acceptable quality level (AQL) for lot by lot inspection (Second Revision)

vii) IS:2771-1990 (Pt-I) (Amdt. No.1) Fiber board boxes corrugated (Second Revision)

viii) IS:4228-1979 (Amdt. No.1) Nylon tapes for aerospace purpose (First Revision)

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SPECIFICATION NO. IND/TC/2666

3. STANDARD PATTERN

3.1 The standard pattern of Tape Nylon tubular 25.4mm White DS Cat. No. - NIV held in the custody of the AHSP, shall constitute the standard as regards any particulars or properties not noted/defined in this specification.

4. MATERIALS

4.1 The item shall be manufactureed from the following materials :-

Sl.No.	Store/Components	Material & Grade if any	Specification
	Tape Nylon Tubular 25.4mm White	The Nylon Yarn used in the manufacture of the Tape Nylon tubular shall be bright, high tenacity and type 6 or 66 or its derivatives. The warp yarn shall be 23.5 tex high tenacity bright filament nylon. The weft yarn shall be spun 29.5 tex x 4 having a minimum breaking load of 19.6 N or 118 tex contiuous filament high tenacity nylon yarn and is required to be of a uniformily high standard in strict conformity with the particulars laid down in this specification.	IS:1969-1985 & IS:1315-1977

4.2 Test certificates of materials from recognised laboratories shall be obtained showing physical and chemical properties if the manufacturer does not have his own laboratory.

5. PROCESSING

5.1 The Tape shall be woven in tubular construction using plain weave. The warp ends may weave 2 ends as one or one end as one. The finished Tape Nylon Tubular shall be clean evenly woven, free from weaving/spinning defects and stains. The selvedges shall be firm, regular and even.

6. DIMENSIONS

6.1 The Tape Nylon Tubular 25.4mm shall be 50m in length or as ordered and in 0.64 to 1.14mm thickness.

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for CONTROLLER,
Controllerate of Quality Assurance
Textiles & Clothing, Kanpur

WORKMANSHIP AND FINISH

7.1 In appearance, general workmanship & finish and in all other respects not noted/defined in this specification, the tape shall conform to the standard pattern held in the custody of the Controller, CQA(T&C), Kanpur.

8. PRE-INSPECTION OF SUPPLIES BY PRODUCER

8.1 Advance Sample : If stipulated in the contract the manufacturers/contractors have to submit advance samples of acceptable quality fabricated from specified materials for clearance by end use A.H.S.P prior to commencement of bulk production.

8.2 Manufacturers/Contractors must satisfy themselves first that the store manufactured is in accordance with the contract and fully conforms to the specification by carrying out thorough pre-inspection of each lot/batch before actually tendering the same for inspection to the Quality Assurance Officer nominated under the terms of the contract.

8.3 A declaration by the contractor that necessary pre-inspection/tests have been carried out on the stores tendered and the same are fit for inspection. Tests/findings shall be rendered along with the challan. The declaration shall also include the method followed in pre-inspection showing features checked/tested.

9. QUALITY ASSURANCE

9.1 Examination of the samples taken from any portion of the consignment or during surveillance inspection, shall conform to the requirements when tested in accordance with the methods mentioned against each in this specification.

9.2 Control samples shall be forwarded to CQA(T&C) from bulk supplies to check/monitor the quality whenever required.

10. SAMPLING PROCEDURE

10.1 The supplier shall arrange the units of the homogeneous lot in such a way that all the units are easily accessible to the Quality Assurance Officer from all sides to enable him to draw samples from any portion of the homogeneous lot.

10.2 Sampling of stores shall be done adopting appropriate sampling method as per IS:4905 so that samples drawn as per table given for assessing various quality requirements, are truly representative of the lot.

11.0 SCALE OF SAMPLING

11.1 The number of sample units to be drawn for assessing the quality of the store, characteristic wise, should be in accordance with the Table I for dimensional/non destructive, visual inspection and Table II for detailed laboratory testing. These are given at clause 12.

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12. CRITERIA FOR CONFORMITY

12.1 All the sample units as specified in Table I & II are required to be tested/inspected irrespective of the rejection number (= Ac + 1) being achived earlier.

12.2 The Quality Assurance Officer shall draw samples as per Table for dimensional/non-destructive/visual inspection to assess the quality of the lot. If the quality of the lot indicates conformity to the standard, sample for laboratory testing will be undertaken. Otherwise the lot shall straightway rejected.

12.3 Sampling for Laboratory Testing

12.3.1 If the lot is considered conformity to the Quality Standards as specified in Table, sampling for laboratory tests shall be carried out as per Table and the samples shall be subjected to the laboratory tests.

12.4 Bulk Sentencing

12.4.1 If the laboratory test report indicates that the lot does not conform to the standards as specified in Table, the whole lot shall be rejected.

12.4.2 The lot shall be considered conforming to the specified quality if the number of defective units observed in the sample is not more that the respective acceptance number of each class of defects.

12.4.3 When the sample size equals to the lot size, do 100% Quality Assurance.

12.4.4 The number of sample units to be sampled for laboratory testing should be a multiple of the number of characteristic tests which can not be carried out simultaneously on the same sample units.

12.5 Sampling and Formation of Lot

12.5.1 The delivery shall be visually inspected by the Quality Assurance Officer at the spot in the first instance to ascertain its homogeneity in respect of nature, size, shape, source and year of manufacture. If it is homogeneous, the delivery shall be treated as one lot. If not, it shall be segregated by the supplier into separate groups so that each group which is homogeneous within itself forms a lot.

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12.6 Sampling Tables

TABLE - I

SAMPLING PLAN FOR VISUAL INSPECTION
(Based on AQL 2.5% Inspection Level IV)

Lot Size	Sample Size (a)	Acceptance Number (a)
2 to 8	5	0
9 to 15	5	0
16 to 25	5	0
26 to 50	5	0
51 to 100	20	1
101 to 150	20	1
151 to 300	32	2
301 to 500	50	2
501 to 1000	80	3
1001 to 3000	125	5
3001 to 10000	200	7
10001 to 30000	315	10

NOTE :- i) The rejection No. (n) will always be more than the acceptance number (a).
ii) When the sample size equals or exceeds, lot size do 100% inspection with zero acceptance number.
iii) Sample size pertains to 2.5% AQL or around.

Source :- IS:2500 (Pt-I)-1992 (Sampling Inspection table)

SAMPLING PLAN FOR MAJOR PARAMETERS
(Based on AQL 4%)

Lot Size	Inspection Level I		Inspection Level II	
	Sample Size	Acceptance Number	Sample Size	Acceptance Number
2 to 8	3	0	3	0
9 to 15	3	0	3	0
16 to 25	3	0	3	0
26 to 50	3	0	5	0
51 to 100	5	0	5	0
101 to 150	5	0	5	1
151 to 300	13	1	13	1
301 to 500	13	1	13	1
501 to 1000	13	1	20	2
1001 to 3000	13	1	20	3
3001 to 10000	20	2	32	3
10001 to 15000	20	2	32	5

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Note :- i) Inspection level I for chemical test (Individual sample to be tested).

ii) Inspection level II for physical test (Inidividual sample to be tested).

iii) The rejection Number (r) will always be one more than the acceptance number.

iv) When the sample size equals or exceeds lot size do 100% inspection/testing with zero acceptance number.

v) Sample size pertain to 4% AQL or around.

vi) Samples from each roll to be drawn for Breaking Load test in case store is required for Mandropping/Brake Parachute.

Source :- IS:2500(Pt.I)-1992 (Sampling Inspection tables)

12.7 Test Methods

12.7.1 Physical Tests :

S.No.	CHARACTERISTICS	REQUIREMENT	TOLERANCE	METHOD OF TEST
(a)	Length	50 or as ordered	-	IS:1954
(b)	Width	25.4	+ 1.6mm	IS:1954
(c)	Thickness	0.64 to 1.14mm	-	Appendix 'A'
(d)	Mass/m max	11.5g	-	Appendix 'B'
(e)	Total No. of ends	206	-	IS:1963
(f)	picks/cm	17	-	IS:1963
(g)	Linear density of	Warp - 23.5 tex Weft - 29.5 tex x 4 or 118 tex single	-	} IS:1315
(h)	Breaking Load (min) (Full width x 18 cm batween grips)	2355 N	-	IS:1969
(j)	Percentage elongation at Break (min)	18%	-	IS:1969

12.7.2 Chemical Tests

(a)	pH value	6.0 to 8.5	-	IS:1390 (Cold Method)
(b)	Nylon (Nature of fibre)	-	-	IS:667-1981 (First revision)

Note : i) No minus tolerance in the width will be permitted. Manufactures are advised to work to the plus tolerance of 1.6 mm to ensure acceptance of the tape.

ii) The sample will be tested after conditioning for 24 hrs at 27 ± 2 °C temperature and 65 ± 2% relative humidity.

iii) No individual reading shall be less than the specified.

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13.0 MARKING

13.1 Marking by the supplier

13.1.1 The store and its components shall be marked, legibly and indelibly at both ends by the suppliers with

a) Nomenclature of store
b) Roll length
c) Manufacturer's name, Initials or recognised trade mark
d) The year of manufacture
e) Catalogue number of the store

13.2 Marking by the Quality Assurance Officer.

13.2.1 Each acceptad store shall be legibly and indelibly marked using stencil plate or Rubber/Steel stamp of letter size 6mm depending upon the size of the stores/component.

13.2.2 Where steel stamping or stencilling is not possible, the rubber acceptance mark shall be stamped on individual packages containing the itmes for this purpose, each package shall be sealed a continuous piece of gummed tape such that ends overlap each other. Acceptance marks shall be affixed on the joint of the tape and partly covering the package.

13.3 The final rejections may be marked by Quality Assurance Officer by stamping the letter 'X' on both sides of the manufacturer's marking thus :

Cap No.
X MISTRY & CO. X
1995

14 PACKAGING

14.1 Packing Materials

Material	Conforming to
a) Laminated Cloth Hessian -	IND/TC/2123(b)
b) Twine Jute -	IS:1912-1984(Third Rev.)
or	or
Polypropylene Twine -	IS:12734-1989
c) Polypropylene Strapping - (0.55mm thick x 12mm width)	Specn. No. IND/GS/1683
d) Fibre board boxes corrugated -	IS:2771-1990(Pt-I)(Second Revision)
e) Tape Paper, Brown, Gummed -	IS:4185-1989
f) Polythene Bags -	Made of Polythene film 0.08 mm thick conforming to IS:9338-2
g) Steel strapping 13mm x 0.4mm - thick	IS:1029-1970 (Medium Grade)
h) Polythene film 0.04 mm thick -	IS:2508-1984(Second Rev.) Reaffirmed 1991
j) Galvanised Wire Steel 2.0mm - or 1.8 mm dia	IS:280-1978(Third Revision) Amdt. No. 1

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14.2 METHOD OF PACKING

14.2.1 The appropriate number of rolls shall be arranged in cylindrical bundles and secured by jute twine or polypropylene twine to form a unit pack. Suitable number of such unit packs shall be arranged and wrapped with 0.04mm thick polythene film. It shall then be placed in the corrugated box. The empty space if any shall be filled in with cushioning material.

14.2.2 Each Box shall be stripped at two places with polypropylene strapping. The polypropylene strapping shall be sealed with a crimped metal seal.

14.2.3 Mass of any Box shall not exceed 40 kg.

14.3 MARKING ON PACKAGE

14.3.1 Each Box shall be legibly and indelibly maeked as under :

i) Cat No. & nomenclature of store
ii) Quantity packed in the Box
iii) Lot & serial No. of Box
iv) Month & Year of packing
v) Gross mass of each Box in kg
vi) Name & trade mark of the manufacturer
vii) Name & address of the consignee
viii) AT/SO No. & date
ix) Inspection Note No. & date

15.0 TECHNICAL LITERATURE/DOCUMENTS

15.1 Illustrated spare parts list History sheet/maintenance manual shall be supplied with each store wherever required/demanded.

16.0 WARRANTY

16.1 Store supplied against this specification shall be deemed to bear the warranty of the contractor against defective design, material, workmanship & finish and performance for period of 12 months from the date of receipt of store at consignee end. If during the specified period, the store supplied is found to be defective, the same shall be replaced immediately with serviceable store by the contractor at site free of any charge or as decided by the purchasing officer on recommendations of Consignee/Quality Assurance Authority.

17. DEFENCE STORE CATALOGUE NUMBER

17.1 This specification is applicable to the following store.

Sl. No.	D.S.Cat. No.	Nomenclature	Size/Capacity/Range
1	NIV	Tape Nylon Tubular 25.4mm White	

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Textiles & Clothing, Kanpur

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18. SUGGESTIONS FOR IMPROVEMENT

18.1 This specification is a live document and subject to change/updating. Any suggestion for improvement of this document may be forwarded to :-

The Controller
Controllerate of Quality Assurance
(Textiles & Clothing)
Post Box No. 294
KANPUR - 208001

PLACE - KANPUR
DATE OF SEALING
DATE OF RESEALING
DATE OF ISSUE

RH/01.8.01/WS4/TC2666

CONTROLLER
CONTROLLERATE OF QUALITY ASSURANCE
(TEXTILES & CLOTHING), POST BOX NO.294
KANPUR - 208001

(C. SHEKHAR) JTO
for CONTROLLER
CQA (T & C)
KANPUR

for CONTROLLER,
Controllerate of Quality Assurance
Textile & Clothing, Kanpur

APPENDIX 'A'

Method for determination of Thickness

Prior of test, the test specimen shall be conditioned in a standard atmosphere of 65 ± 2% relative humidity and 27 °C ± 2 °C temp. for at least 24 hours. Take a test specimen and determine the thickness under a pressure of 210gcm^{-2} at ten different places and calculated the average of these results.

APPENDIX 'B'

Method for determination of Mass

Prior to test, the test specimen shall be conditioned in a standard atmosphere of 65 ± 2% relative humidity and 27 °C ± 2 °C temperature for at least 24 hours. Take a test specimen and apply a tension equal to one percent of the minimum breaking load of the tape. After one minute place two marks on the tape at a distance of 3m apart under the load and cut the test specimen at the marks and determine its mass and culculate mass of the tape per metre.

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Textile R. Station, Kanpur

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GOVERNMENT OF INDIA
MINISTRY OF DEFENCE

SPECN. NO. IND/TC/2666

(Supersedes Prov. Specification No CITSC/TC-8/51)

N.I.V. TAPE NYLON TUBULAR 25.4 mm WHITE

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1. THIS SPECIFICATION IS INTENDED TO GUIDE PURCHASE, INSPECTION AND MANUFACTURE OF TAPE NYLON TUBULAR 25.4 mm WHITE FOR PARACHUTE AGAINST DEFENCE REQUIREMENT.

2. IN CASE OF DISCREPANCY BETWEEN THIS SPECIFICATION AND ANY SAMPLE OR PATTERN, THIS SPECIFICATION WILL BE TAKEN AS CORRECT.

3. WHEREVER A REFERENCE TO ANY OTHER SPECIFICATION/DRAWING OCCURS IN THIS SPECIFICATION, IT SHALL BE TAKEN AS A REFERENCE TO THE LATEST VERSION OF THAT SPECIFICATION/ DRAWING, AT THE TIME OF FINALISATION OF CONTRACT.

EXISTING

ISSUED BY

THE CONTROLLER
CONTROLLERATE OF INSPECTION, TEXTILES & CLOTHING
POST BOX NO. 294
KANPUR-208004

PRICE Rs. Twenty

1987

1. SCOPE

1.1 This specification covers the requirements of woven Tape Tubular 25.4 mm White used in the Man Dropping Parachute and other equipments connected with Air Craft.

2. RELATED SPECIFICATIONS

2.1 Reference is made in this specification to :

(i)	IS : 1954	Methods for determination of Length and width of fabrics.
(ii)	IS : 1963	Methods for determination of ends and picks per unit length in woven fabric.
(iii)	IS : 1969	Methods for determination of breaking load and elongation at break of woven textile fabrics.
(iv)	IS : 4228	Method for determination of Mass in g of 100 m
(v)	IS : 1315	Method for determination of universal count of cotton yarn.
(vi)	IS : 1390	Methods for determination of pH value of aqueous extracts of textile materials.
(vii)	IS : 4905	Methods for random sampling

2.2 All specifications/drawings referred to in this specification for any tender or contract shall mean the edition current on the date of such tender or contract.

2.3 Indian Standard specifications are issued by Indian Standards Institution and are obtainable on payment from the Sales Section, Indian Standards Institution, Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi or their Regional Offices.

3. STANDARD PATTERN

3.1 The standard pattern held by the Controllerate of Inspection, Textiles & Clothing, Kanpur shall constitute the standard as regards any particulars / properties not noted or defined in this specification.

4. MATERIAL

4.1 The Nylon yarn used in the manufacture of the Tape Nylon Tubular shall be bright, high tenacity and type 6 or 66 or its derivatives. The warp yarn shall be 23.5 tex high tenacity bright filament nylon. The weft yarn shall be spun nylon 29.5 tex x 4 having a minimum breaking load of 19.6 N or 118 tex continuous filament high tenacity nylon yarn and is required to be of a uniformly high standard in strict conformity with the particulars laid down in this specification.

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5. MANUFACTURE

5.1 The Tape shall be woven in tubular construction using plain weave. The warp ends may weave 2 ends as one or one end as one. The finished Tape Nylon Tubular shall be clean, evenly woven, free from weaving/spinning defects and stains. The selvedges shall be firm, regular and even.

6. DIMENSIONS AND OTHER DETAILS

6.1 The Tape Nylon Tubular 25.4 mm shall be 50 m in length or as ordered and in 0.64 to 1.14 mm thickness, other details shall conform to the essential particulars given in clause 7 below.

7. QUALITY

7.1 Examination of the samples taken from any portion of a consignment, shall show that the tapes conform to the following requirements, when tested in accordance with the methods mentioned against each :-

	TESTS	REQUIREMENTS	METHODS (refer to)
(a)	Length	50 m or as ordered	IS : 1954
(b)	Width	25.4 + 1.6 mm	IS : 1954
(c)	Thickness	0.64 to 1.14 mm	Appendix 'A'
(d)	Mass/m (max)	11.5 g	Appendix 'B'
(e)	Total No. of ends	206	IS : 1963
(f)	Picks/cm	17	IS : 1963
(g)	Linear density of yarn		
	Warp	23.5 Tex	IS : 1315
	Weft	29.5 Tex x 4 or 118 Tex Single	IS : 1315
(h)	Breaking load (min) (Full width x 18cm between grips)	2355 N	IS : 1969
(j)	Percentage elongation at break (min)	18%	IS : 1969
(k)	pH value	6.0 to 8.5	IS : 1390 (cold method)

Note

(i) No minus tolerance in the width will be permitted. Manufacturers are advised to work to the plus tolerance of 1.6 mm to ensure acceptance of the tape.

(ii) The samples will be tested after conditioning for 24 hrs at 27° C ± 2° C temperature and 65 ± 2% relative humidity.

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(iii) 100 percent sampling/testing/inspection shall be resorted to.

(iv) No individual reading shall be less than the specified.

8. WORKMANSHIP AND FINISH

8.1 In appearance, general workmanship, finish and all other respects not defined in this specification, the store shall conform to the Sealed Pattern held in the custody of the Controller, CIT&C, Kanpur - 208 004.

9. MARKING

9.1 Before tendering the Tape Nylon Tubular for inspection, each roll shall be suitably marked legibly and indelibly at both ends by the supplier with nomenclature of store, roll length, month and year of manufacture and suppliers name or recognised trade mark.

10. PRE-INSPECTION

10.1 Manufacturers/contractors must satisfy themselves that the stores are in accordance with the terms of the contract and fully conform to the required specification by carrying out a thorough pre-inspection of each lot before actually tendering the same for inspection to the Inspecting Officer nominated under the terms of the contract. A declaration by the contractor that necessary pre-inspection has been carried out on the stores tendered will be submitted alongwith the challan. The declaration will also indicate the method followed in carrying out pre-inspection showing the features checked/tested and will have the test certificate attached to the challan/declaration.

10.2 If the Inspecting Officer finds that the pre-inspection of the consignment as required above has not been carried out, the consignment is liable for rejection.

11. SAMPLING

11.1 The supplier/manufacturer shall tender the store duly numbered serially and arranged in such a way that all the units are easily accessible to the Inspector.

11.2 The Inspector shall draw samples from the bulk lot at random using the technique of simple random sampling as given in IS 4905.

11.3 For evaluating length, width, ends in full width, picks/cm the rolls selected as in col. 2 of the table given below, shall constitute the test sample. The number of rolls found defective with respect to width, ends in full width, and picks per cm should not exceed the corresponding number given in col. 3 of the table. In case of length, the value obtained for each roll shall be compared with its specified, declared or marked length. The mean percentage of deficiency of length, if any, shall be determined as made applicable to the lot.

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11.4 For evaluating other laboratory tests on the number of rolles specified in col. 4 of the table shall constitute the test sample.

11.5 The length of the sample subjecting to full tests shall be 5 metres. A 2 metres sample shall also be drawn from the remaining lot for breaking load test.

TABLE

Lot size (Rolls)	Sample size for visual examination (No. of rolls to be selected.)	Permissible No. of defective rolls	Sub-sample size (No of rolls to be selected for lab tests)
1	2	3	4
Upto 25	5	0	3
26 to 50	8	0	5
51 to 100	13	1	7
101 to 150	20	2	9
151 to 300	32	3	11
301 to 500	50	5	13
501 to 1000	80	7	15

12. INSPECTION

12.1 If, on examination of any sample taken from any portion of a consignment, the material is found to be not fully in accordance with this specification, the whole supply may be rejected.

13. PACKAGING

13.1 The appropriate number of rolls shall be arranged in cylindrical bundles and secured by Jute Twine 3 ply to form a unit pack. Suitable number of such unit packs shall be arranged and wrapped with 0.04 mm thick polythene film. Alternatively, one layer of paper wrapping followed by one layer of paper packing waterproof can be used in emergent condition when polythene film 0.04 mm thick is not readily available. It shall then be placed in cases wood packing provided with liner waterproof bag. The empty space if any, shall be filled with cushioning material to prevent any movement of components inside the cases wood packing and the top lid of the cases shall be nailed in. Care shall be exercised that the nails do not pierce the contents inside. The cases wood packing, shall be made secured by fastening with metal hoops or metal wire.

13.2 Packing material used be of best trade quality and previously approved by the Inspection Officer.

13.3. If the store is intended for factory use, the gross mass of the packages shall not exceed 250 kg.

13.4 For DGOS packing, the gross mass of packages shall not exceed 40 kg.

13.5 Stores, if ordered for delivery to local Inspection Depot, shall be delivered loose in firm's returnable packs. The accepted stores shall be packed by the Inspection Depot concerned as per details given in para 13.1 above.

14. MARKING OF PACKAGE

14.1 Before despatch, each package shall be legibly and indelibly marked showing the following details :-

i) Cat. No. and Nomenclature of store
ii) Quantity packed in the case.
iii) Lot and serial No. of case
iv) Month and year of packing
v) Gross mass of each CUP in kg.
vi) Name and trade mark of the manufacturer
vii) Name and address of the consignee
viii) Inspection Note number and date
ix) A 9 /SO/Ext No. and date.

KANPUR

DATE:

(G. D. Rastogi)
Dy CONTROLLER Gp'd B'
CONTROLLER OF INSPECTION TEXTILES & CLOTHING
POST BOX NO.294
KANPUR

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A P P E N D I X 'A'

METHOD FOR DETERMINATION OF THICKNESS

Prior to test, the test specimen shall be conditioned in a standard atmosphere of 65 ± 2% relative humidity and 27° C ± 2° C temperature for at least 24 hours. Take a test specimen and determine the thickness under a pressure of 210 g / cm^2 at ten different places and calculate the average of these results.

A P P E N D I X 'B'

METHOD FOR DETERMINATION OF MASS

Prior to test, the test specimen shall be conditioned in a standard atmosphere of 65± 2% relative humidity and 27° C ± 2°C temperature for at least 24 hours. Take a test specimen and apply a tension equal to one percent of the minimum Breaking load of the Tape. After one minute place two marks on the Tape at a distance of 3 m apart under the load and cut the test specimen at the marks and determine its mass and calculate mass of the Tape per metre.