भारतीय मानक Indian Standard

वस्त्रादि — विद्युत प्रयोजनों के लिए कॉटन स्ट्रिपिंग टेप — विशिष्टि

(दूसरा पुनरीक्षण)

Textiles — Cotton Stripping Tape for Electrical Purposes — Specification

(Second Revision)

ICS 59.060.10

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September 2024

Price Group 4

Technical Textiles for Clothtech Applications including Narrow Fabrics and Braids Sectional Committee, TXD 39

FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards after the draft finalized by the Technical Textiles for Clothtech Applications including Narrow Fabrics and Braids Sectional Committee had been approved by the Textile Division Council.

This standard was first published in 1969 and subsequently revised in 1992. The current revision has been made in the light of experience gained since its publication and to incorporate the following major changes:

- a) Title of the standard has been modified;
- b) BIS certification marking clause has been modified; and
- c) References to Indian Standards have been updated.

Cotton stripping tapes conforming to this specification are intented for binding the outsides of coils in electrical machinery before impregnation with suitable impregnating varnish and to be stripped off afterwards, so as to leave a clean, even surface on the coils.

The composition of the Committee responsible for the formulation of this standard is given in <u>Annex B</u>.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

TEXTILES — COTTON STRIPPING TAPE FOR ELECTRICAL PURPOSES — SPECIFICATION

(Second Revision)

1 SCOPE

This standard prescribes the constructional details and other particulars for three varieties of cotton stripping tape suitable for electrical purpose.

2 REFERENCES

The standard listed in <u>Annex A</u> contain provisions which through references in the text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subjected to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of these standards.

3 MANUFACTURE

The stripping tape shall be woven uniformly and firmly from unbleached cotton yarn. The selvedges shall be uniform throughout the length of the tape.

4 REQUIREMENTS

4.1 Physical

The cotton stripping tape shall comply with the requirements as specified in <u>Table 1</u>.

4.2 Length per Roll

The length of tape per roll shall be 50 metres or its multiple. Each roll shall be free from joints as far as possible. However, 5 percent of the rolls may be permitted to have one joint subject to the condition that each length shall not be less than 20 metres.

The length shall be measured by methods prescribed in IS 1954.

5 PACKING

The rolls shall be packed in such manner so as to

avoid any damage during storage and transit as per the agreement between the buyer and the seller.

6 MARKING

6.1 Each roll of tape shall be suitably marked with the following information:

- a) Name of the material;
- b) Variety number;
- c) Length of roll in metres;
- d) Width of tape in mm;
- e) Manufacturer's name, initials or trademark if any; and
- f) Any other information as required by the law in force.

6.2 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act*, 2016 and the Rules and Regulations framed thereunder, and the product(s) may be marked with the Standard Mark.

7 SAMPLING AND CRITERIA FOR CONFORMITY

7.1 Lot

The quantity of stripping tape of the same type and delivered to a buyer against a despatch note shall constitute a lot.

7.2 The conformity of a lot to the requirements of this standard shall be determined on the basis of the tests carried out on the rolls selected from the lot.

Sl No.	Variety No.	Thickness	Width	Ends/dm	Picks/dm	Breaking Load N/mm Thickness/cm Width	Weave
		mm	mm	Min	Min	Min	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
i)	1	0.125 ± 0.025	15, 20, 25, 30, 40 or 50	330	180	400	Plain
ii)	2	0.2 ± 0.05		300	160	400	Plain
iii)	3	0.4 ± 0.08		270	140	400	Herring bone
Metho	d of Test	IS 7702	IS 1954	IS 1	963	IS 1969	Visual

Table 1 Constructional Particulars of Cotton Stripping Tape

(Clause 4.1)

7.3 The number of rolls shall be selected at random as per IS 4905 as given in <u>Table 2</u>.

7.4 For evaluating (a) width, (b) number of ends, (c) picks per decimetre, (d) thickness, and (e) length, the rolls selected according to $\underline{7.3}$ shall constitute the test sample.

7.5 For evaluating breaking load, the number of rolls specified in col (5) of <u>Table 2</u> shall constitute the test sample. These rolls may be selected from those drawn for the purposes of <u>7.4</u>. One test specimen shall be drawn from each roll thus selected.

7.6 Criteria for Conformity

The lot shall be considered conforming to the requirements of this specification if the following

conditions are satisfied:

a) The number of rolls found defective for any one or more of the characteristics mentioned in <u>7.4</u> (except length) does not exceed the corresponding number given in col (4) of Table 2.

NOTE — In case of Length, the value obtained for the length of the each roll shall be compared with its specified, declared or marked length. The mean percentage deficiency in length, if any, shall be determined and made applicable to the lot.

b) From the observed value for breaking load the average \overline{X} and the range *R* are calculated and the value of the expression $\overline{X} - 0.4R$ is greater than or equal to the specified value.

Sl No.	Lot Size (No. of Rolls)	Sample Size	Permissible No. of Defective Rolls	Sub-sample Size
(1)	(2)	(3)	(4)	(5)
i)	Up to 100	8	1	5
ii)	101 to 300	13	1	6
iii)	301 to 500	20	2	7
iv)	501 to 1 000	32	3	8
v)	1 000 and above	50	5	10

Table 2 Sample Size and Criteria for Conformity

(*Clauses* <u>7.3</u>, <u>7.5</u> and <u>7.6</u>)

ANNEX A

(<u>Clause 2</u>)

LIST OF REFERRED STANDARDS

IS No.	Title	IS No.	Title
IS 1954 : 2024	Textiles — Fabrics — Determination of width and length (<i>third</i>		elongation at maximum force using the strip method (<i>fourth revision</i>)
IS 1963 : 1981	<i>revision</i>) Methods for determination of threads	IS 4905 : 2015 ISO 24153 : 2009	Random sampling and randomization procedures (<i>first</i>
	per unit length in woven fabrics (second revision)	IS 7702 : 2012 ISO 5084 : 1996	revision) Textiles — Determination of
IS 1969 (Part 1) : 2018	Textiles — Tensile properties of fabrics: Part 1 Determination of maximum force and		thickness of textiles and textile products (<i>first</i> <i>revision</i>)

To access Indian Standards click on the link below: https://www.services.bis.gov.in/php/BIS_2.0/bisconnect/knowyourstandards/Indian_standards/isdetails/

ANNEX B

(*Foreword*)

COMMITTEE COMPOSITION

Technical Textiles for Clothtech Applications including Narrow Fabrics and Braids Sectional Committee, TXD 39

Organization	Representative(s)
Additional Controller CQA (General Stores), DGQA, Ministry of Defence, Kanpur	SHRI A. CHOWDHURY (<i>Chairperson</i>)
ICAR - Central Institute for Research on Cotton Technology, Mumbai	DR P. JAGAJANANTHA
Federation of Indian Chambers of Commerce and Industry, New Delhi	SHRI ANU HANDA DR T. SENTHILKUMAR (<i>Alternate</i>)
Indian Technical Textile Association, Mumbai	DR ANUP RAKSHIT SHRI VIKRAM JAIN (<i>Alternate</i>)
M K U Limited, Kanpur	SHRI SUMIT KHANDELWAL SHRI RAJIB PAL (<i>Alternate</i>)
Motilal Dulichand Pvt Ltd, Kanpur	SHRI SHAILENDRA NATH MISRA Shri Sudhir Shivhare (Alternate)
National Textile Corporation, New Delhi	Shri R. K. Yadav
Office of Textiles Commissioner, Mumbai	SHRI V. K. KOHLI SHRI HUMAYUN K. (<i>Alternate</i>)
Ordnance Parachute Factory, Kanpur	SHRI V. M. BAGADE SHRI S. KONDAIAH (<i>Alternate</i>)
SGS Limited, Gurugram	Ms Anitha Jeyaraj Shri Gaurav Saraswat (<i>Alternate</i>)
S L Banthia Textiles Industries Pvt Ltd, Surat	SHRI SANTOSH KUMAR BANTHIA
Shipra International, Kanpur	SHRI ABHISHEK KUMAR AGRAWAL
Sky Industries Ltd, Navi Mumbai	SHRI KAPIL MEHROTRA SHRI MICHAEL (<i>Alternate</i>)
Synthetic and Art Silk Mills Research Association, Mumbai	SHRI SANJAY SAINI Shri Premnath Surwase (<i>Alternate</i>)
Thanawala & Co, Mumbai	SHRI HEMAL THANAWALA SHRI VIVAN THANAWALA (<i>Alternate</i>)
The Bombay Textile Research, Association, Mumbai	Shri Shaikh Riyaz Ahmed Dr Prasanta Kumar Panda (<i>Alternate</i>)
Universal Yarn & Tex Pvt Ltd, Kanpur	SHRI RAJIV K. BHARTIYA

Organization

U P Textile Technological Institute, Kanpur

BIS Directorate General

Representative(s)

DR PRASHANT VISHNOI

SHRI J. K. GUPTA, SCIENTIST 'E'/DIRECTOR AND HEAD (TEXTILES) [REPRESENTING DIRECTOR GENERAL (*Ex-officio*)]

Member Secretary Shri Tanishq Awasthi Scientist 'B'/Asistant Director (Textiles), BIS this Page has been intertionally left blank

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Bureau of Indian Standards

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Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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