

वस्त्रादि — वैगन सीलिंग के लिए टेप —
विशिष्टि

(पहला पुनरीक्षण)

**Textiles — Tapes for Wagon
Sealing — Specification**

(*First Revision*)

ICS 91.100.50

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FOREWORD

This Indian Standard (First 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 covers cotton tapes in two varieties, one ordinary and other of heavy duty for wagon sealing used in the Indian Railways and to secure and seal the doors of freight wagons, ensuring the integrity and safety of the cargo during transit. These tapes are durable and provide a simple yet effective solution for maintaining security and preventing unauthorized access.

This standard was first published in 1982. This 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 Standard given in Annex A has been updated.**

The composition of the Committee responsible for the formulation of this standard is given in [Annex B](#).

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 — TAPES FOR WAGON SEALING —
 SPECIFICATION**

(*First Revision*)

1 SCOPE

This standard covers ordinary and heavy duty woven cotton tapes used by railways for sealing of wagons.

2 REFERENCES

The standards listed in [Annex A](#) contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of these standards.

3 REQUIREMENTS

3.1 Count of Yarn

The following count of warp and weft yarns may be used for the manufacture of ordinary and heavy duty

types of cotton tapes for wagon sealing:

<i>Sl No.</i>	<i>Characteristic(s)</i>	<i>Ordinary Type</i>	<i>Heavy Duty Type</i>
(1)	(2)	(3)	(4)
i)	Warp	30 Tex × 2 (20 _s /2)	60 Tex × 2 (10 _s /2)
ii)	Weft	60 Tex × 2 (10 _s /2)	60 Tex × 2 (10 _s /2)

NOTE — The count of the yarn is given for the guidance of manufacturers only.

3.2 Length of Roll

The length of the roll in meters shall be not less than the length specified in the contract. Test shall be carried out in accordance with IS 1954.

3.3 The cotton tapes for wagon sealing shall also comply with the requirements given in [Table 1](#).

Table 1 Requirements for Cotton Tapes for Wagon Sealing

(Clause [3.3](#))

Sl No.	Type	Width, mm	Tolerance on Width, mm	Mass, g/m <i>Max</i>	Ends in Full Width <i>Min</i>	Picks/cm <i>Min</i>	Breaking Strength Kgf (N) <i>Min</i>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
i)	Ordinary	5	+ 1 – 0	1.85	20	12	9 (88)
ii)	Heavy duty	5	+ 1 – 0	2.80	16	10	14 (137)
iii)	Ordinary	10	+ 1 – 1	2.80	30	12	16 (157)
iv)	Heavy duty	10	+ 1 – 1	4.20	22	10	18 (176)
v)	Ordinary	15	+ 2 – 1	3.70	40	12	20 (196)
vi)	Heavy duty	15	+ 2 – 1	6.80	36	10	29 (284)
Method of Test		IS 1954		IS 1964	IS 1963		IS 1969 (Part 1)

4 FINISH

Grey, scoured or bleached as specified in the contract or order.

The scouring loss for bleached, scoured and grey tapes shall not exceed 1 percent, 2 percent and 5 percent, respectively when tested by mild method given in IS 1383.

5 PACKING

Unless otherwise agreed to between the buyer and the seller, each roll shall be wrapped in 40 cm thick polyethylene film (see IS 2508) or waterproof packing paper (see IS 1398).

6 MARKING

6.1 Each roll shall bear a label providing information

about name/trademark of the manufacturer, length (m), width (mm), thickness (mm), and whether ordinary or heavy duty type.

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

As follows unless otherwise specified:

SI No.	For Length, Width, Ends and Picks			Sub-Sample Size of Mass, Scouring Loss, Breaking Strength	
	Lot Size (Rolls)	Sample Size (Rolls)	Permissible Number of Defective (Rolls)		
(1)	(2)	(3)	(4)	(5)	
i)	Up to 50	3	0	3	‘Mean ± 0.6 range’ to be within the specified limit
ii)	51 to 150	5	0	3	
iii)	151 to 300	8	1	4	
iv)	301 to 500	13	1	5	
v)	501 and above	20	2	7	

ANNEX A

(Clause 2)

LIST OF REFERRED STANDARDS

<i>IS No.</i>	<i>Title</i>	<i>IS No.</i>	<i>Title</i>
IS 1383 : 2023	Methods for determination of scouring loss in grey and finished cotton textile materials (<i>second revision</i>)	IS 1964 : 2001	Textiles — Methods for determination of mass per unit length and mass per unit area of fabrics (<i>second revision</i>)
IS 1398 : 1982	Specification for packing paper water proof, bitumen-laminated (<i>second revision</i>)	IS 1969 (Part 1) : 2018/ISO 13934-1 : 2013	Textiles — Tensile properties of fabrics: Part 1 Determination of maximum force and elongation at maximum force using the strip method (<i>fourth revision</i>)
IS 1954 : 2024/ ISO 22198 : 2006	Textiles — Fabrics — Determination of width and length (<i>third revision</i>)	IS 2508 : 2016	Polyethylene films and sheets — Specification (<i>third revision</i>)
IS 1963 : 1981	Methods for determination of threads per unit length in woven fabrics (<i>second revision</i>)		

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ANNEX B

(Foreword)

COMMITTEE COMPOSITION

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

<i>Organization</i>	<i>Representative(s)</i>
Additional Controller CQA (General Stores), DGQA, Ministry of Defence, Kanpur	SHRI A. CHOWDHURY (<i>Chairperson</i>)
Federation of Indian Chambers of Commerce and Industry, New Delhi	SHRI ANU HANDA DR T. SENTHILKUMAR (<i>Alternate</i>)
ICAR - Central Institute for Research on Cotton Technology, Mumbai	DR P. JAGAJANANTHA
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 (<i>Alternate</i>)
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>)
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Universal Yarn & Tex Pvt Ltd, Kanpur	SHRI RAJIV K. BHARTIYA
BIS Directorate General	SHRI J. K. GUPTA, SCIENTIST 'E'/DIRECTOR AND HEAD (TEXTILES) [REPRESENTING DIRECTOR GENERAL (<i>Ex-officio</i>)]

Member Secretary
SHRI TANISHQ AWASTHI
SCIENTIST 'B'/ASISTANT DIRECTOR
(TEXTILES), BIS

Bureau of Indian Standards

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Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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