

वस्त्रादि — मशीनरी कपड़े, ऊन —  
विशिष्टि  
भाग 4 प्लाडिंग कपड़ा  
(दूसरा पुनरिक्षण)

**Textiles — Machinery Fabrics, Wool  
— Specification  
Part 4 Plaiding Cloth  
( Second Revision )**

ICS 59.080.30

© BIS 2023



भारतीय मानक ब्यूरो  
BUREAU OF INDIAN STANDARDS  
मानक भवन, 9 बहादुर शाह ज़फर मार्ग, नई दिल्ली - 110002  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI - 110002  
[www.bis.gov.in](http://www.bis.gov.in) [www.standardsbis.in](http://www.standardsbis.in)

March 2023

Price Group 4

## FOREWORD

This Indian Standard (*Second Revision*) was adopted by the Bureau of Indian Standards, after the draft finalized by the Industrial Fabrics Sectional Committee had been approved by the Textiles Division Council.

This standard was first published in 1976 and revised in 1982. The present revision has been made in the light of experience gained since its last revision and to incorporate the following major changes:

- a) Title of the standard has been modified.
- b) References to Indian Standards have been updated.

The plaiding cloth is generally a twill woven heavy fabric made of wool fibres or blends of wool with man-made fibres. Any weave other than twill weave may be accepted as agreed between the buyer and the seller. The plaiding cloth is used in printing and jute machines for designing bags and garments.

This series of standards on machinery fabrics is published in the following parts:

- Part 1 General
- Part 2 Clearer cloth
- Part 3 Sizing flannel
- Part 4 Plaiding cloth
- Part 5 Lapping cloth

Part 1 covers the general requirements and other particulars regarding marking, packaging, sampling and criteria for conformity of machinery fabrics.

The composition of the committee responsible for the formulation of this standard is listed 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 : 1960 '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 — MACHINERY FABRICS, WOOL —**  
**SPECIFICATION**  
**PART 4 PLAIDING CLOTH**  
*( Second Revision )*

**1 SCOPE**

This standard (Part 4) prescribes the manufacturing particulars and other requirements of plaiding cloth.

**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 editions of these standards.

**3 MANUFACTURING PARTICULARS**

The manufacturing particulars of plaiding cloth are given in Table 1.

**Table 1 Manufacturing Particulars of Plaiding Cloth**  
*( Clause 3 )*

| SI No.<br>(1) | Particulars<br>(2)                          | Requirements<br>(3)  | Methods of Test<br>(4) |
|---------------|---|--|------------------------|
| i)            | Composition of yarn                         |  | IS 7610 (Part 1)       |
|               | a) Warp                                     | All wool or blends of wool with synthetic fibres/flax containing wool content of not less than 80 percent. |                        |
|               | b) Weft                                     | All wool or blends of wool with synthetic fibres/flax containing wool content of not less than 80 percent. |                        |
| ii)           | Nominal count of basic yarn (Warp and weft) | 150 to 400 tex (Nm 6.6 to 2.5)   | IS 1315                |
| iii)          | Threads per dm                              |  | IS 1963                |
|               | a) Ends                                     | 90 to 200  |                        |
|               | b) Picks                                    | 80 to 20   |                        |
| iv)           | Weave                                       | Twill  | Visual                 |
| v)            | Type of finish                              | Milled and/or raised   | -                      |

NOTE — The constructional particulars of cloth are left to the choice of the manufacturer subject to the range specified for counts of yarn and number of ends and picks.

**4 REQUIREMENTS**

The plaiding cloth shall conform to the requirements given in Table 2 in addition to

complying with the stipulations laid down in IS 7610 (Part 1).

**Table 2 Requirements of Plaiding Cloth**  
(Clause 4)

| Sl No. | Characteristic  | Requirement  | Method of Test   |
|--------|---|--|------------------|
| (1)    | (2)   | (3)  | (4)              |
| i)     | Mass, g/m <sup>2</sup><br><i>Tolerance</i>                | 750 to 1250<br>± 10 percent on the specified value | IS 1964          |
| ii)    | Breaking strength on<br>5 cm x 20 cm strips N, <i>Min</i> |  | IS 1969 (Part 1) |
|        | a) Warpway  | 1 175  |                  |
|        | b) Weftway  | 975  |                  |
| iii)   | Length, m, <i>Min</i>                                     | 40 or as agreed between buyer and seller           | IS 1954          |
| iv)    | Width, cm   | 152 or as agreed between buyer and seller          | IS 1954          |
|        | <i>Tolerance</i>  | ± 2.5 cm   |                  |

## ANNEX A

(Clause 2)

## LIST OF REFERRED INDIAN STANDARDS

| <i>IS No</i>      | <i>Title</i>  | <i>IS No</i>   | <i>Title</i>  |
|-------------------|---|--|---|
| IS 1315 :<br>1977 | Method for determination of linear density of yarns spun on cotton system ( <i>first revision</i> )                       | IS 1969<br>(Part1) :<br>2018/<br>ISO13934-<br>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 :<br>1990 | Determination of length and width of woven fabrics — Methods ( <i>second revision</i> )                                   | IS 7610<br>(Part 1) :<br>2022                          | Textiles — Machinery fabrics, wool — Specification: Part 1 General ( <i>first revision</i> )  |
| IS 1963 :<br>1981 | Methods for determination of threads per unit length in woven fabrics ( <i>second revision</i> )                          |  |   |
| IS 1964 :<br>2001 | Textiles — Methods for determination of mass per unit length and mass per unit area of fabrics ( <i>second revision</i> ) |  |   |

ANNEX B  
(Foreword)

COMMITTEE COMPOSITION

Technical Textiles for Industrial Fabrics Sectional Committee, TXD 33

| <i>Organization</i>   | <i>Representative(s)</i>  |
|---|---|
| PSG College of Technology, Coimbatore                                       | DR G. THILAGAVATHI ( <b>Chairperson</b> )                             |
| Ahmedabad Textile Research Association, Ahmedabad                           | SHRIMATI DEEPALI PLAWAT<br>SHRI JIGAR DAVE ( <i>Alternate</i> )       |
| Central Coir Research Institute, Alappuzha                                  | DR ANITA JACOB<br>SHRIMATI SUMI SABESTIAN ( <i>Alternate</i> )        |
| DKTE Centre of Excellence in Non wovens, Kolhapur                           | SHRI ANIKET SBHUTE  |
| Director General of Quality Assurance, Mumbai                               | SHRI PURUSOTTAM DE  |
| Entermonde Polycoaters Limited, Nashik                                      | DR K .M .S. REDDY<br>SHRI AJEY GODBOLE ( <i>Alternate</i> )           |
| Garware Technical Fibres Limited, Pune                                      | SHRI S. J. CHITNIS<br>SHRI RAJENDRA Ghadge ( <i>Alternate</i> )       |
| ICAR- National Institute of Natural Fibre Engineering & Technology, Kolkata | DR MANIK BHOWMICK<br>DR SANJOY DEBNATH ( <i>Alternate</i> )           |
| Indian Technical Textile Association, Mumbai                                | DR ANUP RAKSHIT<br>SHRIMATI RUCHITA GUPTA ( <i>Alternate</i> )        |
| Kirti Filtration and Automation Pvt Ltd, Vadodara                           | SHRI KULIN MASTURLAL<br>SHRIMATI KIRTI MASTURLAL ( <i>Alternate</i> ) |
| Kusumgar Corporates Pvt Ltd, Mumbai   | SHRI Y. K. KUSUMGAR<br>DR M. K. TALUKDAR ( <i>Alternate</i> )         |
| Masturlal Private Limited, Mumbai   | SHRI SHRAMIK MASTURLAL  |
| Office of the Textile Commissioner, Mumbai                                  | SHRI NAROTTAM KUMAR<br>SHRI AMAR K. CHAPHPEKAR ( <i>Alternate</i> )   |
| Ordnance Equipment Factory, Kanpur  | SHRI V. K. CHOUDHARY  |
| PSG College of Technology, Coimbatore                                       | SHRI V. MUTHUKUMAR  |
| Pacific Harish Industries Ltd, Mumbai                                       | SHRI MUNJAL UDESHI<br>SHRI S. VENKATESH ( <i>Alternate</i> )          |
| Patel Polypack, Ahmedabad   | SHRI KALPESH PATEL  |
| Plast India Foundation, Mumbai  | SHRI SURENDER CHOUDHARY<br>DR E. SUNDARESAN ( <i>Alternate</i> )      |

| <i>Organization</i>   | <i>Representative(s)</i>   |
|---|--|
| Reliance Industries Limited, Navi Mumbai                      | SHRI MAHESH C SHARMA<br>SHRI RAJENDREN SUBRAMANIAN ( <i>Alternate</i> )  |
| SRF Limited, Gurugram   | SHRI A. R. RAJESH<br>SHRIMATI ANGELINA DIVYA ( <i>Alternate</i> )  |
| Salva Laminates Ltd, Vapi                                     | SHRI NIMESH SALVA  |
| Textiles Committee, Mumbai                                    | SHRI J. D. BARMAN<br>SHRI GANESH P. BANGAR ( <i>Alternate</i> )  |
| The Bombay Textile Research Association, Mumbai               | DR PRASANTA KUMAR PANDA<br>DR SREE KUMAR ( <i>Alternate</i> )  |
| The Synthetic and Art Silk Mills Research Association, Mumbai | DR MANISHA MATHUR<br>SHRIMATI ASHWINI SUDAM ( <i>Alternate</i> )   |
| Virendra Textiles, Noida                                      | SHRI AMIT GUPTA  |
| Welspun India   | SHRI RAJEEV SHARMA<br>SHRI BASUDEV BASU ( <i>Alternate</i> )   |
| BIS Directorate General                                       | SHRI J. K. GUPTA, SCIENTIST 'E'/DIRECTOR<br>AND HEAD (TEXTILES) [REPRESENTING<br>DIRECTOR GENERAL ( <i>Ex-officio</i> )] |

*Member Secretary*  
SHRI DHARMBEER  
SCIENTIST 'C'/DEPUTY DIRECTOR  
(TEXTILES), BIS







## Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act, 2016* to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

### Copyright

BIS has the copyright of all its publications. No part of these publications may be reproduced in any form without the prior permission in writing of BIS. This does not preclude the free use, in the course of implementing the standard, of necessary details, such as symbols and sizes, type or grade designations. Enquiries relating to copyright be addressed to the Head (Publication & Sales), BIS.

### Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the website- [www.bis.gov.in](http://www.bis.gov.in) or [www.standardsbis](http://www.standardsbis).

This Indian Standard has been developed from Doc No.:TXD 33 (16932).

### Amendments Issued Since Publication

| Amend No. | Date of Issue | Text Affected |
|-----------|---------------|---------------|
|           |               |               |
|           |               |               |
|           |               |               |
|           |               |               |

## BUREAU OF INDIAN STANDARDS

### Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002  
Telephones: 2323 0131, 2323 3375, 2323 9402

Website: [www.bis.gov.in](http://www.bis.gov.in)

### Regional Offices:

|   | Telephones                 |
|---|----------------------------|
| Central : 601/A, Konnectus Tower -1, 6 <sup>th</sup> Floor,<br>DMRC Building, Bhavbhuti Marg, New<br>Delhi 110002 | { 2323 7617                |
| Eastern : 8 <sup>th</sup> Floor, Plot No 7/7 & 7/8, CP Block, Sector V,<br>Salt Lake, Kolkata, West Bengal 700091 | { 2367 0012<br>{ 2320 9474 |
| Northern : Plot No. 4-A, Sector 27-B, Madhya Marg,<br>Chandigarh 160019   | { 265 9930                 |
| Southern : C.I.T. Campus, IV Cross Road, Taramani, Chennai 600113   | { 2254 1442<br>{ 2254 1216 |
| Western : Plot No. E-9, Road No.-8, MIDC, Andheri<br>(East), Mumbai 400093  | { 2821 8093                |

**Branches :** AHMEDABAD. BENGALURU. BHOPAL. BHUBANESHWAR. CHANDIGARH. CHENNAI. COIMBATORE. DEHRADUN. DELHI. FARIDABAD. GHAZIABAD. GUWAHATI. HIMACHAL PRADESH. HUBLI. HYDERABAD. JAIPUR. JAMMU & KASHMIR. JAMSHEDPUR. KOCHI. KOLKATA. LUCKNOW. MADURAI. MUMBAI. NAGPUR. NOIDA. PANIPAT. PATNA. PUNE. RAIPUR. RAJKOT. SURAT. VISAKHAPATNAM.