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BUREAU OF INDIAN STANDARDS

Minutes

**Wool, Wool Products and Textile Floor Coverings
Sectional Committee, TXD 04**

28th Meeting

Date	Time	Venue
25 April, 2024 (Thursday)	1100 h	Video Conference through CISCO Webex

Attendees:

1.	Dr. D. B. Shakyawar (Chairman)	ICAR - National Institute of Natural Fibre Engineering and Technology, Kolkata
2.	Shri Puneet Jain	AAA Spinners, Panipat
3.	Dr. Smita Nagarkoti	Carpet Export Promotion Council, New Delhi
4.	Dr. Prakash N Bhat	Central Silk Board, Bangalore
5.	Dr. Hina Quazi	Crafts Development Institute, Srinagar
6.	Shri Ramesh Kumar Bundela	Central Wool Development Board, Jodhpur
7.	Dr. Parveen Kumar	Department of Animal Husbandry, Govt of Rajasthan, Jaipur
8.	Shri Chandan Mishra	GBTL Ltd., Bhiwani
9.	Shri Dharmesh Kumar	-do-
10.	Shri R. K. Sharma	Himachal Handloom and Handicrafts, Himachal
11.	Dr. Ajay Kumar	ICAR - Central Sheep and Wool Research Institute, Avikanagar
12.	Shri Vinod Kadam	-do-
13.	Prof (Dr.) Rajeev Kumar Varshney	Indian Institute of Carpet Technology, Bhadohi
14.	Dr. (Smt) Betty Dasgupta	-do-
15.	Dr. Zubair Ahmad	Indian Institute of Carpet Technology, Srinagar
16.	Shri Hemant Parab	Intertek India Private Limited, Gurugram
17.	Shri Sandeep Kumar Singh	Northern Railway, New Delhi
18.	Shri Suresh Singal	National Woollen & Finishers, Panipat
19.	Shri Aditya Singal	-do-
20.	Shri Makarand Mehendale	Obeetee Private Limited, Bhadohi
21.	Shri Mayank Jaiswal	-do-
22.	Shri Sandeep Kumar Patel	Office of the Development Commissioner (Handicraft), New Delhi
23.	Shri Sanjeev Goel	Om Shakti Textiles, Panipat
24.	Shri Sourabh Kulkarni	Office of the Textile Commissioner, Mumbai

25.	Shri Satyam Lamba	Raymonds Limited, Thane
26.	Shri Rauf Wadera	Tahafuz Society, Srinagar
27.	Shri R. Chandran	Textile Committee, Mumbai
28.	Smt. Damayanti Meher	-do-
29.	Shri Srinath Vanaparti	Welspun Flooring Limited, Hyderabad
30.	Smt. Malini Gautham	Wilton Weavers Pvt Ltd, Kerala
31.	Shri Vinod Kumar	-do-
32.	Shri Mayur Basuk	Wool Research Association, Thane
BIS DIRECTORATE GENERAL:		
33.	Shri Himanshu Shukla Scientist B (Textiles) & (Member Secretary)	Bureau of Indian Standards, New Delhi
34.	Shri Abhishek Gupta (Executive Assistant)	-do-

Item 0 WELCOME & INTRODUCTORY REMARKS

0.1 Dr. D. B. Shakyawar, Chairman TXD 04 extended a hearty welcome to the committee members and the invitees. He highlighted the indispensable role of stakeholders in standardization activities, as well as underscored the pivotal role of standards in ensuring quality in the field of wool products and floor coverings. He also emphasized active deliberation on task undertaken by the committee to formulate a standard on railway blanket.

0.2 Member Secretary also extended a hearty welcome to the Chairman and members of TXD 04.

Item 1 CONFIRMATION OF THE MINUTES OF THE PREVIOUS MEETING

In view of no comments received, the committee formally confirmed the minutes of the 27th meeting of TXD 04 held on 12 January 2024 through video conferencing were circulated vide BIS DG letter no. TXD 04/A2.27 dated 24 January 2024.

Item 2 SCOPE AND COMPOSITION OF TXD 04

2.1 The committee noted the present scope and reviewed the composition of TXD 04 as given in Annex 1 to the Agenda and DECIDED as under:

- a) Dr. Praveen Kumar will represent Directorate of Animal Husbandry, Jaipur as principal member and name of alternate member will be informed.
- b) To seek fresh nomination from All India Carpet Manufacturers' Association, Bhadohi.

c) To recommend to Textile Division Council (TXDC), the co-option of National Woollen and Finishers, Panipat in TXD 04. Shri Suresh Singhal and Shri Aditya Singhal shall represent as principal member and alternate member respectively.

d) To recommend to Textile Division Council (TXDC), the co-option of Wilton Weavers, Kerala in TXD 04. Smt. Malini Gautham and Shri Vinod Kumar shall represent as principal member and alternate member respectively.

e) To recommend to Textile Division Council (TXDC), the withdrawal of Department of Sheep Husbandry, Ladakh from TXD 04.

Item 3 ISSUES ARISING OUT OF PREVIOUS MEETING OF TXD 04

3.1 The Committee NOTED the summary of actions taken on the various decisions of the 27th meeting as given in Annex 2 to the agenda.

Item 4 DRAFT STANDARD FOR FINALIZATION

4.1 The committee considered the wide circulation draft on ‘Textiles — Wool/Polypropylene and Wool/Nylon Blended Blankets — Specification’ [Doc. No. (24805)] (First Revision of IS 12848 : 1989) and comments received from AAA Spinners, Panipat, National Woollen and Finishers, Panipat, IICT, Srinagar, Northern Railways and Shri Makarand Mehendale, Obeetee Pvt. Ltd., Bhadohi, as given in Annex 3 and Annex 4, Annex 4A, Annex 4B to the Agenda respectively.

After detailed deliberation, the committee decided as follows:

a) To substitute the following Table 2 for the existing:

Table 2 Constructional Particulars and Other Requirements for Blankets
(Clause 5.2)

Sl. No.	Characteristics	Requirement		Tolerance	Method of Test, Ref to
		Type 1	Type 2		
i)	Blend composition				IS 667
	a) Wool, <i>Min</i>	52	70		
	b) Polypropylene	48		±3 percent	
	c) Nylon	-	30		
ii)	Mean fiber length of wool, mm, <i>Min</i>	40	50	-	IS 1377

iii)	Fiber length of other fiber, <i>Min</i>			-	IS 10014 (Part 1)
	a) Polypropylene	66	-	-	
	b) Nylon	-	55	-	
iv)	Fiber fineness	-	-	-	
	a) Wool (grade), <i>Min</i>	48s	58s	-	IS 5910
	b) Polypropylene, (denier), <i>Min</i>	3 denier	-	-	IS 10014 (Part 2)
	c) Nylon (denier), <i>Min</i>	-	3 denier	-	
v)	Approximate count of basic yarn, tex (nm), <i>see</i> Note				IS 10014 (Part 2)
	a) Warp	350 (2.85)	220 (4.50)	-	
	b) Weft	350 (2.85)	220 (4.50)	-	
vi)	Ends/dm	90	110	± 5 percent	IS 1962
vii)	Picks/dm	70	100	± 5 percent	IS 1963
viii)	Mass, g/m ²	515	520	± 5 percent	IS 1964
ix)	Mass per blanket, Kg, <i>Min</i>	1.30 or 1.80 or as agreed	1.35 or 1.82 or as agreed		IS 1964
x)	Breaking strength on 05 cm × 20 cm strip, N, <i>Min</i>			-	IS 1969 (Part 1)
	a) Warpway	300	350	-	
	b) Weftway	200	250	-	
xi)	Dimension (Length × Width), cm × cm	215 × 120 or 230 × 152 or as agreed	215 × 120 or 230 × 152 or as agreed	± 2 cm	IS 1954
xii)	Weave type	2/2 twill	2/2 twill	-	Visual
xiii)	Thickness, mm, <i>Min</i>	3.5	2.0	-	IS 7702
xiv)	Relaxation shrinkage, percent, <i>Max</i>	3.0	3.0	-	IS 665
xv)	Colour fastness to				
	a) Light	4 or better	4 or better	-	IS/ISO 105-B02
	b) Washing			-	

	i) Change in colour of test specimen	4 or better	4 or better	-	IS/ISO 105-C10
	ii) Staining on adjacent fabric	4 or better	4 or better	-	
	c) Rubbing			-	IS/ISO 105-X12
	i) Dry rubbing	4 or better	4 or better	-	
	ii) Wet rubbing	3 or better	3 or better	-	
	d) Dry cleaning			-	IS/ISO 105-D01
	i) Change in colour of test specimen	4 or better	4 or better	-	
	ii) Staining on solvent	4 or better	4 or better	-	
xvi)	Pilling resistance (1000 cycles)	3 or better	3 or better	-	IS 10971 (Part 1)
xvii)	pH value of aqueous extract	5 to 7	5 to 7	-	IS 1390
xviii)	Average thermal resistance, $m^2.K/W$, <i>Min</i>	0.05	0.05	-	IS 17376
Note — The approximate count of basic yarn is given for guidance only.					

c) Rewrite the clause 4.3 as follows:

The blanket shall be manufactured in plaid, tartan, or geometric pattern (*see* Fig. 1, Fig. 2 and Fig. 3), or as agreed between buyer and seller and shall be milled, and given a raised finish.

d) Insert the following Fig.3 for geometric pattern:



Fig.3 Geometric Pattern

The committee further decided that the above draft is held to be finalized for publication after incorporating the above-mentioned changes. BIS may carry out the editorial changes in the draft, if required.

Item 5 WORKING DRAFT ON HANDMADE PASHMINA CARPET FOR P-DRAFT APPROVAL

5.1 The committee considered the working draft on ‘Handmade Pashmina Carpet’ as submitted by the panel constituted under the convenorship of Dr. Zubair Ahmad, IICT, Srinagar and as given in Annex 5 to the Agenda. After detailed deliberation, the committee decided to circulate the draft to all the committee members for a time period of 15 days, eliciting the technical comments. The committee further decided that the comments received along with the draft will be placed in the next committee meeting for discussion and decision.

Item 6 INTERNATIONAL ACTIVITIES

6.1 The committee considered the following International Standard published by ISO/TC 219 on Textile Floor Covering:

- i) ISO/TS 21868:2023 Textile Floor Coverings — State of the Art on Maintenance and Cleaning

After deliberation, committee decided that the following members shall review the above ISO standard and give their suggestions/recommendations within 07 days to BIS for adoption of above standard:

- i) Dr. Betty Das Gupta, IICT Bhadohi
- ii) Shri Srinath Vanaparti, Welspun Flooring Ltd. Hyderabad
- iii) Shri Makarand Mehndale, Obeetee Pvt. Ltd, Gopiganj

The committee further decided that based on suggestions/recommendation (If adopted), the preliminary drafts on above ISO standards shall be prepared by BIS and the same shall be issued for wide circulation for eliciting technical comments for two months. BIS may carry out any editorial changes in the draft, if required.

Item 7 NEW WORK ITEM PROPOSALS

7.1 The committee considered the new work item proposal on Broadloom Wool Carpet along with the inputs/technical data sheet received from Wilton Weavers, Kerala to formulate a new standard on the subject as given in Annex 7 to the Agenda. After detailed deliberation, the committee decided to constitute a panel with the following composition to prepare the working draft on the aforementioned subject:

- i) Dr. Betty Das Gupta, IICT Bhadohi (**Convenor**)
- ii) Shri Srinath Vanaparti, Welspun Flooring Ltd. Hyderabad
- iii) Shri Mayur Basuk, Wool Research Association, Thane
- iv) Shri Makarand Mehndale, Obeetee Pvt. Ltd, Bhadohi
- v) Shri Ajay Kumar, CSWRI, Avikanagar
- vi) Shri Himanshu Shukla, BIS

The committee further requested Wilton Weavers, Kerala to share the detailed test results, raw material requirements etc. covering all the varieties of broadloom wool carpets for discussion/deliberation in the panel meeting.

7.2 The committee considered the list of following new subjects on textile floor coverings identified during a consultative meeting organized with standardization cell of Ministry of Textiles and officials of Ministry of Home Affairs for framing Rolling Annual Action Plan 2024-25 on Friday, 01 March 2024 through videoconferencing:

- i) Polyamide carpet and floor covering with special finishes like anti- soil, anti- microbial, anti-odor, anti- stain, anti-static
- ii) Polyamide carpet and floor covering with special finishes like water repellent
- iii) Polyamide carpet and floor covering with fire-retardant properties
- iv) Polyester carpet and floor covering with special finishes like anti- soil, anti- microbial, anti-odor, anti- stain, anti-static

- v) Polyester carpet and floor covering with special finishes like water repellent
- vi) Polyester carpet and floor covering with fire-retardant properties
- vii) Polypropylene carpet and floor covering with special finishes like anti-soil, anti-microbial, anti-odor, anti-stain, anti-static
- viii) Polypropylene carpet and floor covering with special finishes like water repellent
- ix) Polypropylene carpet and floor covering with fire-retardant properties
- x) Polyamide carpet and floor covering with special finishes like UV stabilizer and heat resistant
- xi) Polypropylene carpet and floor covering with special finishes like UV stabilizer and heat resistant
- xii) Polyethylene carpet and floor covering with special finishes like UV stabilizer and heat resistant

After deliberation, the committee decided to refer the above subjects to panel constituted under item 7.1 to discuss and suggest the possible inclusion of subject/varieties in the following existing standards:

- a) IS 17478 : 2020 Wall to Wall Carpets Made of Polyamide (Nylon) Yarn
- b) IS 17479 : 2023 Carpet Tiles Made of Synthetic Yarn
- c) IS 18158 : 2023 Artificial Grass Carpet made of Synthetic Yarn for Landscape

The committee further decided that based on the panel recommendation, the standards listed at Sl. No. a) to c) will be taken up for revision and the revised working prepared will be placed in the next committee meeting for discussion and decision.

8 REVIEW OF STANDARDS

8.1 The committee considered the list of standards due for review as given in Annex 8 to the agenda. After detailed deliberations, the committee decided as mentioned in the following Table:

Sl. No.	IS Number	IS Title	Decision
1	IS 10466 : 1983	Guide for care and maintenance of carpets	To recommend to TXDC for withdrawal of the standard
2	IS 10921 : 1984	Specification for carpet yarn made from virgin wool	Decided as under 8.2
3	IS 11206 : 1984	Glossary of textile terms — Wool and other animal fibres, their processing and products	-do-
4	IS 12811 : 1989	Worsted lohis — Specification	-do-
5	IS 12812 : 1989	Worsted shawls — Specification	-do-
6	IS 12838 : 1989	Blazer cloth — Specification	-do-

7	IS 14291 : 1995	Textiles — Woollen shoddy yarn — Specification	-do-
8	IS 14292 : 1995	Textiles — Shoddy woollen barrack blankets — Specification	-do-
9	IS 1530 : 1981	Specification for baize cloth (<i>second revision</i>)	-do-
10	IS 675 : 1973	Specification for bunting, worsted (<i>second revision</i>)	-do-
11	IS 741 : 1971	Code for inland packaging of woollen and worsted yarn and cloth (<i>first revision</i>)	-do-
12	IS 677 : 1974	Specification for cloth drab-mixture, woollen, water-resistant (<i>second revision</i>)	-do-
13	IS 5641 : 1993	Textile floor covering — Handmade wool carpets — Specification (<i>second revision</i>)	Taken up as R&D project
14	IS 5756 : 1970	Code for packaging of carpets	-do-
15	IS 12848 : 1989	Wool/polypropylene blended blankets — Specification	Already taken up for revision
16	IS 697 : 2005	Textiles — Druggets (DURRIES) made from wool, camel hair and goat hair — Specification (<i>first revision</i>)	To fill the review proforma and circulate for 7 days. Reaffirm the standard in case of no comment received.
17	IS 5884 : 2020	Textile Floor Covering — Hand Tufted Carpets — Specification (<i>third revision</i>)	-do-
18	IS 11205 : 2011/ ISO 2424 : 2007	Textile floor coverings — Vocabulary (<i>first revision</i>)	-do-
19	IS 11471 :2020/ ISO 2551 : 2020	Textile Floor Coverings and Textile Floor Coverings in Tile Form — Determination of Dimensional Changes Due to the Effects of Varied Water and Heat Conditions and Distortion out of Plane (<i>first revision</i>)	-do-
20	IS 17396 : 2020	Textile floor coverings — Assessment of changes in appearance	-do-
21	IS 17478 : 2020	Textile Floor Covering — Wall to Wall Carpets Made of Polyamide (Nylon) Yarn — Specification	-do-
22	IS 17479 : 2020	Textile Floor Covering — Carpet Tiles Made of Polyamide (Nylon) Yarn — Specification	-do-

23	IS 17474 : 2020/ ISO 10833 : 2017	Textile Floor Coverings — Determination of Resistance to Damage at Cut Edges Using the Modified Vettermann Drum Test	-do-
24	IS 17476 : 2020/ ISO 10580 : 2010	Resilient, Textile and Laminate Floor Coverings — Test Method for Volatile Organic Compound (VOC) Emissions	-do-
25	IS 17477 : 2020/ ISO 4918 : 2016	Resilient, Textile and Laminate Floor Coverings — Castor Chair Test	-do-
26	IS 17486 : 2020/ ISO 12951 : 2020	Textile Floor Coverings — Determination of Mass Loss, Fibre Bind and Stair Nosing Appearance Change Using the Lisson Tretrad Machine	-do-
27	IS 17488 : 2020/ ISO 11857 : 1999	Textile Floor Coverings — Determination of Resistance to Delamination	-do-
28	IS 17489 : 2020/ ISO 13750 : 2000	Textile Floor Coverings — Determination of Resistance to Staining by Acid Food Colours	-do-
29	IS 17490 : 2020/ ISO 6356 : 2012	Textile and Laminate Floor Coverings — Assessment of Static Electrical Propensity — Walking Test	-do-

8.2 The committee considered the list of Pre-2000 standards as given in Annex 9 to the agenda. After detailed deliberations, the committee decided that these selected pre-2000 documents/standards of BIS need to be reviewed thoroughly by the following experts of relevant field in today's context, to suggest suitable modification/changes in the text within 30 days. To complete this task, it was decided to circulate soft copies (preferably in word format for ease in incorporation of changes) of the standards to the experts for sharing their comments. The list of experts to review the aforementioned standards are as follows:

Sl. No.	IS Number	IS Title	Experts
1	IS 10921 : 1984	Specification for carpet yarn made from virgin wool	i) Dr. Keshav Singh, Raymonds Limited, Thane
2	IS 11206 : 1984	Glossary of textile terms — Wool and other animal fibres, their processing and products	ii) Shri Suresh Singhal, National Woollen & Finishers, Panipat iii) Shri Suresh Thakur, Wool & Woollens Export Promotion Council, New Delhi
3	IS 12811 : 1989	Worsted lohis — Specification	
4	IS 12812 : 1989	Worsted shawls — Specification	iv) Shri Mayur Basuk, Wool Research Association, Thane
5	IS 12838 : 1989	Blazer cloth — Specification	

6	IS 14291 : 1995	Textiles — Woollen shoddy yarn — Specification	v) Shri Anurag Purohit, Central Wool Development Board, Jodhpur vi) Shri Shreyansh Bothra, Bikaner Woollen Mills Pvt. Ltd., Bikaner
7	IS 14292 : 1995	Textiles — Shoddy woollen barrack blankets — Specification	
8	IS 1530 : 1981	Specification for baize cloth (<i>second revision</i>)	
9	IS 677 : 1974	Specification for cloth drab-mixture, woollen, water-resistant (<i>second revision</i>)	
10	IS 675 : 1973	Specification for bunting, worsted (<i>second revision</i>)	
11	IS 741 : 1971	Code for inland packaging of woollen and worsted yarn and cloth (<i>first revision</i>)	

9 ANY OTHER BUSINESS

There being no other business, the meeting ended with a hearty vote of thanks to the Chair.