For BIS Use Only

BUREAU OF INDIAN STANDARDS

AGENDA

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

CHAIRMAN: Dr. D.B. Shakyawar, Director, ICAR-National Institute of Natural Fibre Engineering and Technology, Kolkata

MEMBER SECRETARY: Shri Himanshu Shukla, Scientist B, Textile Department

Item 0 WELCOME & INTRODUCTORY REMARKS

Item 1 CONFIRMATION OF THE MINUTES OF THE PREVIOUS MEETING

1.1 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. No comments were received.

1.1.1 The Committee may **CONFIRM** the minutes as circulated.

Item 2 SCOPE AND COMPOSITION OF TXD 04

2.1 The present scope and updated composition of the committee is given in **Annex 1 (Pages 4-6).**

2.1.1 The Committee may **REVIEW.**

Item 3 ISSUES ARISING OUT OF PREVIOUS MEETING OF TXD 04

3.1 Summary of actions taken on the various decision of the 27th meeting are given in **Annex 2 (Page 7).**

3.1.1 The Committee may **NOTE**.

Item 4 DRAFT STANDARD FOR FINALIZATION

4.1 As decided by the committee in the last meeting, the following draft standard was issued in wide circulation for a time period of one month, eliciting technical comments from stake holders vide our letter reference no.- TXD 04/21617 dated 07-02-2024, with last date of comment on 08 March 2024:

a) Textiles — Wool/Polypropylene and Wool/Nylon Blended Blankets — Specification [Doc. No. (24805)] (*First Revision of* IS 12848 : 1989)

Draft standard as issued in wide circulation is given in **Annex 3 (Pages 8-17)**. Comments have been received from AAA Spinners, Panipat, National Woollen and Finishers, Panipat, IICT, Srinagar, Northern Railways and Shri Makarand Mehendale, Obeetee Pvt. Ltd., Bhadohi and are given in **Annex 4 (Pages 18-29), Annex 4A** and **Annex 4B (Attached Separately).**

4.1.1 The committee may **DELIBERATE** and **DECIDE.**

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

5.1 As decided by the committee in the last meeting, a panel was constituted under the convenorship of Dr. Zubair Ahmad, IICT, Srinagar to discuss/deliberate on the working draft on 'Handmade Pashmina Carpet' and prepare a revised draft. A panel meeting was convened on 12 January, 2024 to discuss/deliberate on the working draft under the convenorship of IICT, Srinagar. The revised working draft as received from panel constituted for the purpose is given in **Annex 5 (Pages 30-34).**

5.1.1 The committee may **DELIBERATE** and **DECIDE.**

Item 6 INTERNATIONAL ACTIVITIES

6.1 The following International Standards have been published by ISO/TC 219 for Textile Floor Covering:

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

The extract of ISO Standard is given at **Annex 6 (Pages 35-38)**.

6.1.1 The committee may **DELIBERATE** and **DECIDE** for possible adoption of above International Standard.

Item 7 NEW WORK ITEM PROPOSALS

7.1 A new work item proposal has been received from Wilton Weavers, Kerala to formulate a new standard on Broadloom Wool Carpet.

The inputs/technical data sheet on the subject as received from Wilton Weavers, Keral is given is given at **Annex 7 (Pages 39-42)**.

7.1.1 The committee may **DELIBERATE** and **DECIDE**.

7.2 The following subjects on textile floor coverings were 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

7.2.1 The committee may **DELIBERATE** and **DECIDE**.

8 REVIEW OF STANDARDS

8.1 As per procedure of BIS, standards which were published/reaffirmed are required to be reviewed to assess adequacy of the requirements specified. Review is carried out keeping in view the changes in technology, current industrial practices and the needs/expectations of the consumers / users so as to decide regarding further reaffirmation / revision / withdrawal / amendment of the standards under review.

The list of standards due for review under the domain of TXD 04 are given at **Annex 8 (Pages 43-44).**

8.1.1 The committee may **DELIBERATE** and **DECIDE.**

9.2 As per the decision of the Competent Authority of Bureau, it is decided to review all standards published prior to the year 2000.The list of standards published prior to 2000 under the domain of TXD 04 are given at **Annex 9 (P-45)**.

9.2.1 The committee may **DELIBERATE** and **DECIDE**.

Item 10 DATE AND PLACE OF NEXT MEETING

Item 11 ANY OTHER BUSINESS

ANNEX 1

(*Item* **2.1**)

Scope & Composition of Wool, Wool Products and Textile Floor Coverings Sectional Committee, TXD 04

Scope: To formulate Indian Standards for terminology, grading, packaging and specifications for wool, wool products and textile floor coverings.

Meetings held	**Date and Place**
25th Meeting	18 January 2023, (Video conferencing)
26th Meeting	27 October 2023, (Video conferencing)
27th Meeting	12 January 2024, (Video conferencing)

SL NO.	ORGANIZATION REPRESENTED	NAME OF THE REPRESENTATIVE PRINCIPAL/(ALTERNATE)	ATTEN DANCE
1.	**Chairman**	**Dr D B Shakyawar** ICAR - National Institute of Natural Fibre Engineering and Technology, Kolkata	3/3
2.	All India Carpet Manufacturers' Association, Bhadohi	Shri Ravi Patodia (Shri Surenda K Baranwal)	0/3
3.	Carpet Export Promotion Council, New Delhi	Dr. Smita Nagarkoti (Shri Anuj Jangira)	3/3
4.	Central Silk Board, Bangalore	Dr. S. Periyasamy (Dr. Prakash N. Bhat)	2/3
5.	Central Wool Development Board, Jodhpur	Shri Anurag Purohit (Shri Ramesh Kumar Bundela)	2/3
6.	Crafts Development Institute, Srinagar	Director (CDI, Srinagar) (Dr. Hina Quazi)	3/3
7.	Department of Sheep Husbandry, Leh Ladakh	Nomination awaited	0/3
8.	Directorate of Animal Husbandry, Jaipur	Dr. J. S. Sehgal	3/3

9.	Directorate General of Quality Assurance, Ministry of Defence, Kanpur	Shri D. K. Pujari	3/3
10.	Export Promotion Council for Handicraft, New Delhi	Shri Rajesh Rawat	0/3
11.	Ganga Acrowools Ltd., Ludhiana	Dr. Ravinder Verma	0/0
12.	ICAR - Central Sheep & Wool Research Institute, Avikanagar	Dr. Ajay Kumar (Dr. Vinod Kadam)	3/3
13.	Indian Institute of Carpet Technology, Bhadohi	Dr. (Smt) Betty Dasgupta (Prof. R. K. Malik)	3/3
14.	Indian Institute of Carpet Technology, Srinagar	Dr. Zubair Ahmad	2/3
15.	Indian Institute of Technology, Delhi	Prof. R. Chattopadhyay (Prof. Vijaykumar Narayandas Baheti)	1/3
16.	Intertek Private Limited, Gurgaon	Shri Hemant Parab (Shri Sanjay B Kumar)	3/3
17.	Karambhoomi, Ladakh	Shri Atul Kumar (Ms. K. Dolma)	0/3
18.	M/s Ahujasons Shawlwale Pvt. Ltd., New Delhi	Shri Puneet Ahuja	0/3
19.	M/s Bikaner Woollen Mills Pvt. Ltd., Bikaner	Shri Shreyansh Bothra	3/3
20.	Khadi & Village Industries Commission, Mumbai	Shri S. K. Sinha (Shri S P Gupta)	1/3
21.	National Institute of Natural Fibre Engineering and Technology, Kolkata	Dr. Sanjay Debnath (Dr. Manik Bhoumick)	3/3
22.	Obeetee Pvt. Ltd., Bhadohi	Shri Makarand Mehndale (Shri Mayank Jaiswal)	3/3
23.	Office of the Development Commissioner (Handicraft), New Delhi	Ms. Pooja Venugopal (Shri Sandeep Kumar Patel)	2/3
24.	Office of the Textile Commissioner, Mumbai	Shri Sourabh Kulkarni (Shri Pranav Parashar)	3/3
25.	Raymonds Limited, Thane	Dr. Keshav Singh (Shri Rajeev Hichkad)	2/3
26.	Sher-e-Kashmir University of Agricultural, Sciences and Technology of Kashmir, Srinagar	Dr. Asif Hassan Sofi (Dr. Sheikh Rafi)	2/3
27.	TAHFUZ Society, Srinagar	Shri Rauf Wadera (Shri Mohammad Rafiq Sofi)	3/3

28.	Textiles Committee, Mumbai	Shri J. D. Barman (Shri R. Chandran)	3/3
29.	Trident Home Decor Limited, Budhani	Shri Brijesh Saraf	1/2
30.	Welspun India, Hyderabad	Shri Srinath Vanaparti	3/3
31.	Wool & Woollens Export Promotion Council, New Delhi	Shri Suresh Thakur	1/3
32.	Wool Research Association, Thane	Shri Shishir Tyagi (Shri Mayur Basuk)	3/3

ANNEX 2

(*Item* **3.1**)

SUMMARY OF ACTIONS TAKEN ON THE DECISIONS TAKEN IN THE LAST AND PREVIOUS MEETING

Item No.	Decision	Action taken
2.1	Scope and Composition of TXD 04	Updated composition of TXD 04 is given in Annex 1.
4.1	**REVISION OF IS 12848 : 1989 'WOOL/POLYPROPYLENE BLENDED BLANKETS'** In the last meeting the committee decided to wide circulate the draft revision of IS 12848 : 1989 for a time period of one month, eliciting technical comments from stakeholders.	The draft revision of IS 12848 was issued in wide circulation for one month time period. Coming up for discussion under Agenda item **4.1**.
5.1	**PRELIMINARY DRAFT ON AIRCRAFT CARPET** In the last meeting, the committee decided to circulate the preliminary draft on 'Aircraft carpet' after incorporating the inputs received on the draft suitably, for a period of one month, eliciting technical comments from stakeholders.	The preliminary draft is yet to be circulated.
6.1	**WORKING DRAFT ON HANDMADE PASHMINA CARPET FOR P-DRAFT APPROVAL** In the last meeting, the committee constituted a panel under the convenorship of Dr. Zubair Ahmad, Indian Institute of Carpet Technology, Srinagar to discuss/ deliberate further on the working draft on 'Handmade Pashmina Carpet'.	A panel meeting was held on 12 January, 2024 to discuss/deliberate on the working draft under the convenorship of Dr. Zubair Ahmad, IICT, Srinagar. A revised working draft has been received from the panel. Coming for discussion under Agenda Item **5.1**.

ANNEX 3

(*Item* **4.1**)

WIDE CIRCULATION DRAFT ON IS 12848 'TEXTILES — WOOL/POLYPROPYLENE AND WOOL/NYLON BLENDED BLANKETS — SPECIFICATION'

भारतीय मानक ब्युरो

BUREAU OF INDIAN STANDARDS

DRAFT FOR COMMENTS ONLY

Doc. No: TXD 04 (24805) WC
February 2024

भारतीय मानक मसौदा

वस्त्रादि – ऊन/पालीप्रोपाइलीन और ऊन/नाइलान समिश्रित कंबल – विशिष्टी

(आई ऍस 12848 *का पहला पुनरीक्षण)*

Draft Indian Standard

Textiles — Wool/Polypropylene and Wool/Nylon Blended Blankets — Specification

(First Revision of IS 12848 *)*

ICS 97.160; 59.080.30

Last date for receipt of comment is **08 March 2024**

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

FOREWORD

(Formal clauses shall be added later)

Wool/polypropylene and wool/nylon blankets are being increasingly used within the country due to its several advantages like lighter in weight, durable and sufficient warm.

This standard was first published in 1989, which covered wool/polypropylene blended blankets.

The present revision has been made on the instance of northern railways, which aims to include a newer variety of wool/nylon blended blankets and upgrade the constructional and performance requirements to ensure the production of good quality wool/polypropylene and wool/nylon blankets, thus ensuring availability of such quality products in the market.

Following major changes have been incorporated in the present revision of the standard:

a) Scope and title of the standard have been modified to incorporate an additional variety of wool/nylon blended blanket;
b) Stitching and piping requirements have been specified for the blankets;
c) Pilling, average thermal resistance and flammability requirements have been included;
d) Moth proofing requirement has been modified;
e) Option for blanket loops has been specified in the standard;
f) Provision has been given for patterned blankets;
g) Marking, packaging and sampling clauses have been modified;
h) BIS certification marking clause has been modified; and
j) References to Indian Standard given in Annex A have been updated

1 SCOPE

1.1 This standard prescribes the construction details and other particulars for following two types of blankets:

a) *Type* I — blankets made of wool and polypropylene fiber blends;
b) *Type* II — blankets made of wool, nylon and other fiber blends.

1.2 This standard does not specify general appearance and feel of the blankets (*see* also **4**).

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 subjected to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated in Annex A

3 TERMINOLOGY

For the purpose of this standard, the definitions given in IS 11206 shall apply.

4 MANUFACTURE AND WORKMANSHIP

4.1 The blankets shall have turn in selvedges. The traverse edges of blankets shall have minimum 2.5 cm wide continuous piping of long sateen cloth with 6 mm turn in. The sateen cloth used for piping shall conform to the requirements as given in Table 1. The piping shall be securely sewn to the body of the blanket with polyester sewing thread conforming to variety number 5 (145 dtex ×3) of IS 9543. The number of stitches per centimeter shall not be less than 4. The shade of the piping and sewing thread shall match closely to that of the blanket.

4.2 If required by the buyer, the blankets shall be provided with suitable size blanket loops on all four corners which shall be made of sateen cloth conforming to the requirements as given in Table 1.

Table 1 Requirements for Sateen Cloth

(*Clauses* 4.1 *and* 4.2)

Sl. No.	**Characteristics**	**Requirement**	**Method of Test, Ref to**
i)	Material	100 percent polyester	IS 667
ii)	Ends/dm, *Min*	400	IS 1962
iii)	Picks/dm, *Min*	270	IS 1963
iv)	GSM, g/m^2, *Min*	55	IS 1964

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

4.4 The blankets shall be manufactured using the stock dyed wool, whereas the polypropylene and nylon fibers used for manufacturing the blankets shall be either dope dyed or fibre dyed.

FIG 1 PLAID PATTERN

FIG 2 TARTAN PATTERN

5 REQUIREMENT

5.1 The blankets shall be property washed and shall be free from grease, soap, filling or any other admixture which might give fictitious mass or firmness.

5.2 The blankets shall meet the constructional and other requirements as given in Table 2.

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

Sl. No.	Characteristics	Requirement		Tolerance	Method of Test
		Type 1	Type 2		
i)	Blend composition				IS 667
	a) Wool, *Min*	52	70		
	b) Polypropylene	48		±3 percent	
	c) Nylon	-	30		
ii)	Fiber length, mm			-	IS 10014 (Part 1)
	a) Wool	40 to 60	50 to 70	-	
	b) Polypropylene	66	-	-	
	c) Nylon	-	55 to 65	-	
iii)	Fiber fineness	-	-	-	IS 5910

	a) Wool (grade), *Min*	48s	58s	-	
	b) Polypropylene, (denier), *Min*	3 denier	-	-	
	c) Nylon (denier), *Min*	-	3 denier	-	
iv)	Approximate count of basic yarn, tex (nm), *see* Note				IS 10014 (Part 2)
	a) Warp	350 (2.85)	220 (4.50)	-	
	b) Weft	350 (2.85)	220 (4.50)	-	
v)	Ends/dm	90	110	± 5 percent	IS 1962
vi)	Picks/dm	70	100	± 5 percent	IS 1963
vii)	Mass, g/m^2	515	520	± 5 percent	IS 1964
viii)	Mass per blanket, Kg	1.8	1.35	± 5 percent	IS 1964
ix)	Breaking strength on 05 cm × 20 cm strip, N, *Min*			-	IS 1969 (Part 1)
	a) Warpway	300	350	-	
	b) Weftway	200	250	-	
x)	Length, cm	215 or 230 or as agreed	215 or 230 or as agreed	± 2 cm	IS 1954
xi)	Width, cm	120 or 152 or as agreed	120 or 152 or as agreed	± 2 cm	IS 1954
xii)	Weave type	2/2 twill	2/2 twill	-	Visual
xiii)	Thickness, mm, *Min*	3.8	2.0	-	IS 7702
xiv)	Relaxation shrinkage, percent, *Max*	2.0	2.0	-	IS 665
xv)	Colour fastness to				
	a) Light	4 or better	4 or better	-	IS/ISO 105-B02
	b)Washing			-	IS/ISO 105-C10
	i) Change in colour of test specimen	4 or better	4 or better	-	
	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	4 or better	4 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)	*p*H value of aqueous extract	5-7	5-7	-	IS 1390
xviii)	Average thermal resistance, m^2.K/W, *Min*	0.08	0.08	-	IS 17376
xix)	Flammability test				IS 11871, Method A
	a) Duration of flame (after flame time), s, *Max*	15	15		
	b) Duration of afterglow, s, *Max*	5	5		
	c) Char length, mm, *Max*	200	200		
Note — The approximate count of basic yarn is given for guidance only.					

5.3 Moth Proofing

The blankets shall be rendered moth-proof with permethrin or otherwise by any suitable chemicals which will not have toxic effect on human body. The manufacturer shall declare the mothproofing chemicals used, its minimum residual content and the method of test for determining the same.

5.4 Freedom from Defects

The blankets when visually examined on a flat surface shall not have any objectionable flaw. The objectionable flaws shall be those which immediately strike the eyes of the person examining the blankets and shall be deemed to include:

a) missing ends and picks,
b) floats,
c) cuts and holes,
d) stains,
e) weft bars and warp section marks, and
f) big slubs, knots and specks
g) dyeing defects (streaks, patches etc.)
h) thick and thin places.

NOTE — Reference may be made to IS 14466 for details of these flaws.

6 SEALED SAMPLES

6.1 If in order to illustrate or specify general appearance, feel, shade etc of blankets, a sample has been agreed upon and sealed, the supply shall be in conformity with the sample in such respects.

6.1.1 The custody of the sealed sample shall be a matter of prior agreement between the buyer and the seller.

7 MARKING

7.1 The blankets shall be marked with the following:

a) Manufacturer's name, initials or trade-mark, if any;
b) Batch /lot number;
c) Name of the material with type of the blanket, that is Type 1/Type 2;
d) Blend composition that is percentage of wool, nylon or polypropylene or any other fibers;
e) Month and year of manufacture;
f) Mass per blanket and GSM (g/m^2);
g) Length and width of the blankets; and
h) Any other information/instruction provided by the manufacture/required under law.

7.2 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per theconformity 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.

8 PACKING

8.1 The blankets shall be packed securely so as to allow normal handling and transport without tearing and exposing the contents. The blankets shall be suitably folded in a rectangular form and packed in suitable packaging material. Details of the packing shall be as agreed to between the buyer and the seller.

9 SAMPLING AND CRITERIA FOR CONFORMITY

9.1 Lot

The quantity of blanket having same blend composition and supplied to one buyer against one despatch note shall constitute a lot.

9.2 Unless otherwise agreed between the buyer and the seller, the number of pieces to be selected at random shall be in accordance with col 1 and col 2 of Table 3. To ensure randomness of selection IS 4905 may be used.

9.3 The conformity of a lot to the requirements of the standard, shall be determined on the basis of the tests carried out on the sample selected from the lot as indicated in Table 4.

Table 3 Sample Size and Criteria for Conformity

(*Clause* 9.2)

Sl No. **(1)**	**Lot Size** **(2)**	**Sample Size** **(3)**	**Permissible Number of Non-conforming blankets** **(4)**	**Sub-sample Size** **(5)**
i)	Up to 90	5	0	3
ii)	91 to 150	8	0	3
iii)	151 to 500	13	1	5
iv)	501 to 1200	20	1	5
v)	1201 to 10000	32	2	8
vi)	10001 to 35000	50	3	8
vii)	35001 to 500000	80	5	13
viii)	500001 and above	125	7	13

Table 4 Number of Tests and Criteria for Conformity

(*Clause* 9.3)

Sl No.	*Characteristics*	*Number of Samples*	*Criteria for Conformity*
i)	Breaking strength, colour fastness, fiber fineness, blend percent, *p*H value, mothproofing, blend composition, fiber length, fiber fineness, scouring loss, pilling resistance, average thermal resistance, flammability	According to col 5 of Table 3	Number of non-conforming pieces shall not exceed the corresponding number given in column 4 of Table 3
ii)	Freedom from defect, length, width, thickness ends/ dm, picks/dm, weave and mass per blanket, mass per square meter, thickness	According to col 3 of Table 3	All the test pieces shall meet the requirement.

ANNEX A

(*Clause* 2)

LIST OF REFERRED INDIAN STANDARDS

IS No.	*Title*
665 : 1989	Method for determination of dimensional changes of fabrics containing wool on soaking in water (*first revision*)
667 : 1981	Methods for identification of textile fibres (*first revision*)
1383 : 2023	Methods for determination of scouring loss in grey and finished cotton textile materials (*second revision*)
1390 : 2022	Textiles — Determination of *p*H of aqueous extract (*third revision*)
1954 : 1990	Determination of length and width of woven fabrics — Methods (*second revision*)
1963 : 1981	Methods for determination of threads per unit length in woven fabrics (*second revision*)
1964 : 2001	Textiles — Methods for determination of mass per unit length and mass per unit area of fabrics (*second revision*)
1969 (Part 1) : 2018	Textiles — Tensile properties of fabrics — Part 1 Determination of maximum force and elongation at maximum force using the strip method (*fourth revision*)
4905 : 2015	Random sampling and randomization procedures (*first revision*)
5910 : 2023	Fineness Grades of Wool
7702 : 2012	Textiles — Determination of thickness of textiles and textile products (*first revision*)
9543 : 2015	Textiles — Spun polyester sewing threads — Specification (*first revision*)
10014 (Part 1) : 1984	Methods of tests for man-made staple fibres Part 1 Determination of length
10014 (Part 2) : 1981	Methods of tests for man-made staple fibres Part 2 Determination of linear density
10971 (Part 1) : 2022	Textiles — Determination of fabric propensity to surface pilling fuzzing or matting Part 1: Pilling box method (*second revision*)
11206 : 1984	Glossary of textile terms — wool and other animal fibres, their processing and products
11871 : 1986	Methods for determination of flammability and flame resistance of textile fabrics
14466 : 1997	Fabrics — Description of defects — Vocabulary
17376 : 2020	Textiles — Determination of physiological effects — Measurement of thermal and water-vapour resistance under steady-state conditions (Sweating guarded-hot plate test)
105-B02 : 2014	Textiles — Tests for colour fastness — Part B02 Colour fastness to artificial light: Xenon arc fading lamp test

105-C10 : 2006	Textiles — Tests for colour fastness — Part C10 Colour fastness to washing with soap or soap and soda
105-D01 : 2010	Textiles — Tests for colour fastness — Part D01 Colour fastness to drycleaning using perchloroethylene solvent
105-X12 : 2016	Textiles — Tests for colour fastness — Part X12 Colour fastness to rubbing (*first revision*)

ANNEX 4
(*Item* **4.1**)

COMMENTS ON DRAFT REVISION OF IS 12848 'TEXTILES — WOOL/POLYPROPYLENE AND WOOL/NYLON BLENDED BLANKETS — SPECIFICATION'

Commentator: AAA SPINNERS, PANIPAT

Comment:

To
The Controller of Stores
Northern Railway
New Delhi

Ref: Doc No. TXD 04 (24805) WC February 2024 By Bureau of Indian Standards.

Sub: Regarding Specification of Woollen Blankets For Indian Railways.

Dear Sir,

We are an ISO 9001:2015 & Wool Mark Organization certified company & manufacturers of best quality Yarn & Woollen Blankets We are a Government Supplier / Contractor registered by reputed Government Department such as NSIC, DGQA (Ministry of Defence, India) & supplying our products to many Government Departments such as Indian paramilitary forces like CRPF, CISF, BSF, & ITBP, Indian Railways and Ministry of Defence. We are having a Composite Plant having Dying, Spinning, Weaving, Finishing of Woolen Blanket at one place. Last year, we have also supplied about 80000 Nos. of Blanket to Ministry of Defence whose specification is almost same as per this new railway blanket specification.

Please find below our comments regarding your New Blanket Specification:

Sl No.	Propose Specification of Type 2	Our Suggested Specification	Our Remark
i)	**Blend composition**		1. In this Suggested blend, we will use the best quality of recycled wool which will help in contributing to the Green Eco System. 2. Using recycled wool over virgin wool means lower carbon emissions & energy
	A) Wool : 70	65 (+ 5 %)	
	B) Polypropylene		
	C) Nylon: 30	30(+ 5 %)	
	D) Other Fibre	5-6 (Max)	

			consumption. Recycled Woollen Material will use much less water in the manufacturing process. Sheep rearing & processing virgin wool can be very water intensive. 3. If we use the virgin wool then we have to import this good quality of wool from other countries which is again the opposite policy of Make In India Policy of our Indian Government. 4. Our Indian virgin wool will not match the quality which is required in this blanket. 5. This new suggested specification is better then old current specification. Previous specification consist of following blend composition : Wool : 60, Nylon 15 & Other fIber 25%. But in this new specification, nylon percentage is more (30%) & other fiber (5%) percentage is less which will improve its quality. 6. May be we can get the small quantity but to meet the huge demand of Indian Railway it will not be available. 7. Their will be vegetable matter in huge quantity in Indian Wool which will reduce the quality of blanket. 8. The Indian Wool be available only in dark brown shade. We cannot dye this wool to make light colors. So we cannot make the check blanket in attractive design combinations.
ii)	**Fiber length, mm** A) Wool 50 to 70 B) Polypropylene C) Nylon 55 to 65	Not Required	1. Our Indian virgin wool will not match the quality which is required in this blanket. There will be variation in the Fibre Length also. The process of cutting the wool from the sheep is improper in India. 2. Only Imported Australian Wool of fine Micron about 22 can give the uniformity in fibre length which is very expensive.

			3. The Fibre Length, (mm) Parameter should not be mentioned in the specification. The life of blanket should be mentioned in the specification for the quality purpose instead of fibre length. 4. If we mentioned the fibre length then it will only complicate the specification & it effects the bulk production to meet the urgent demand of Railways.
iii)	**Fiber fineness:**		It will improve the quality of blankets (fineness) from the previous blanket specification whose fineness is on the lower side. When we have mentioned the fibre fineness of Blankets then we will use the quality of nylon which meets its specification. 3 denier nylon is not available in big quantity in the market. It will again effect the production.
	a) Wool 58 S	ok	
	b) Polypropylene	Not Reequired	
	c) Nylon 3 Denier		
iv)	Approximate count of basic yarn, tex (nm)		
	a) Warp 220(4.50)		The count of yarn used in the blankets should be for guidance purpose only.
	b) Weft 220(4.50)		The count of yarn used in the blankets should be for guidance purpose only.
v)	Ends/dm 110 (+/- 5%)	110 (-5%) Minimum	No value should be given in maximum tolerance side. if the results comes better from desired value then It will only improves the quality.
vi)	Picks/dm 100	100 (- 5 %) Minimum	No value should be given in maximum tolerance side. if the results comes better from desired value then It will only improves the quality
vii)	Mass, G/M 520	ok	ok
viii)	Mass per blanket, Kg 1.35	ok	ok
ix)	Breaking strength on 05 cm × 20 cm strip, N, Min	ok	ok
	a) Warpway 350	ok	ok

	b) Weftway 250	ok	ok
x)	Length, cm 215 or 230 As agreed (± 2 cm)	ok	215 or 230 or as agreed
xi)	Width, cm 120 or 152 or as agreed (± 2 cm)	ok	120 or 152 or as agreed
xii)	Weave type 2/2 twill	ok	2/2 twill
xiii)	Thickness, mm, Min 2.0	Not Required	1. The thickness test should also not mentioned in the specification. At a time of approval of advance samples, some railways prefer more pressed blankets & some railways preferred more raised blankets. If we pressed more then its thickness will be effective & if we raised more then its again thickness will be effective. 2. We cannot obtain thickness of 2.0 mm in 520 GSM Blanket.
xiv)	Relaxation shrinkage, percent, Max 2.0	Max	The relaxation shrinkage should be 4 max instead of 2 max. The wool has a higher properties in shrinkage as compare to other material such as cotton, Polyester etc. The current specification IS 894 also having relaxation shrinkage of 4 max.
xv)	Colour fastness to		
a) Light 3 or better	3 or better	It should be 3 or better	It should be as per IS 1980
b)Washing			
i)Change in colour of test specimen 4 or better	4 or better	It should be 3 or better	It should be as per IS 1980
ii) Staining on adjacent fabric	4 or better	3 or better	It should be as per IS 1980
c) Rubbing			

i) Dry rubbing	4 or better	3 or better	It should be as per IS 1980
ii) Wet rubbing	4 or better	3 or better	It should be as per IS 1980
	d) Dry cleaning		
	i) Change in colour of test specimen 4 or better	3 or better	It should be as per IS 1980
	ii) Staining on solvent 4 or better	3 or better	It should be as per IS 1980
xvi)	Pilling resistance (1000 cycles)	Not Required	It will only increase the cost of blankets & it will effect production
xvii)	Average thermal resistance, $m^2 \cdot K/W$, Min	Not Required	1. The temperature in AC Coaches are not maintained. Sometimes the temperature is high or low as per passenger request. In that circumstances, it is difficult to maintain the average thermal resistance value. 2. The testing of Average thermal resistance & Flammability Test will only increase the costing of Blankets. The annual demand of Indian Railways of Woollen Blankets will be around 15 lacs. Therefore, costing factor should also taken while considering the specification. 3. There are not many NABL Labs who can provide this testing. Due to the limited lab they will charge high testing charges. 4. The Woollen Blankets already having a natural fire-resistant properties offer maximum protection against fire. 5. It will only complicate the specifications due to this only few supplies can participate which resulted in making of Cartel.
xviii)	Flammability test		
	a) Duration of flame (after flame time),s, Max 15	Not Required	1. The testing of Average thermal resistance & Flammability Test will only increase the costing of Blankets. The annual demand of Indian Railways of Woollen Blankets will be around 15
	b) Duration of afterglow, s, Max	Not Required	

	c) Char length, mm, Max 200		lacs.Therefore, costing factor should also taken while considering the specification. 2. There are not many NABL Labs who can provide this testing. Due to the limited lab they will charge high testing charges. 3. The woollen blankets also having a natural high thermal resistance properties. 4. It will only complicate the specifications due to this only few supplies can participate which resulted in making of Cartel.

Sir, we are supplying blankets to Indian Railways for many years. The demand of railways are very big. Sometimes they need the blankets very urgently to meet their passengers need. Therefore, we humbly request your honor to make the specification which improves the quality of blankets. And at the same time it should be simple not complicated so that we can meet the urgent demand of Indian Railways. If we use the Indian Virgin Wool, then it will also effect the quality of blankets. Moreover, this sector is reserved for MSME & this specification will also unable the small MSME to participate in this item. Only few suppliers will participate in the tenders which result in a very high pricing of blankets & also can result in making of Cartel.

You are kindly requested to consider our suggestion & if your honor having any query then please let us know. Always assuring our best cooperation to you at all the times & looking forward for your kind cooperation in this regard.

Commentator: NATIONAL WOOLLEN & FINISHERS, PANIPAT

Comment:

Dear Sir,
We would like to bring to your kind notice that there is more than sufficient production of Sheep Wool in India required for the production of wool blankets specified above.

We are also attaching the Indian government data for the same for your reference.

Attachment 1

Introduction to wool production report

Jammu and Kashmir is a newly-formed Union Territory of Indian Union Under the Jammu and Kashmir Reorganization Act, 2019.The Union territory (erstwhile Jammu and Kashmir State) has made substantial progress in industrial development over the last few decades.

Wool scenario: Jammu and Kashmir is the largest fine producer of wool in the country. It produced 7218 MT of wool in 2018-19 and held a share of 18.1% in the total wool production in the country.

However, in absence of wool processing facilities, almost the entire quantity of wool produced in Jammu and Kashmir is exported to neighbouring states for processing value addition which, thereafter, is imported back into J&K at enhanced rates,

In view of the abundance of wool in Jammu and Kashmir, the new Handloom and Handicrafts policy envisages upon facilitating wool processing by setting up wool processing/ de-hairing plants in Jammu and Kashmir. With setting up of wool processing units, there shall be adequate supply of raw material, enabling volume production of handloom and handicrafts products. This shall sharply bring down cost of raw material which has shot up to 50 pc in recent times. This diminishes economic for exporters in international markets which is not able to absorb shock of price escalation of raw material.

At the back end, the agro-climatic conditions of Jammu and Kashmir are most conducive for greater wool production. Sheep population of Jammu and Kashmir stands at 3.4 million which is 5% of India's total population. The Merino wool remains Jammu & Kashmir's Unique Selling Proposition (USP) as it is one of the finest kind of wool and the main raw material for weaving of shawls and carpets. The grading of wool in J&K is based on its fitness, length, colour and feel. Average yield of wool per sheep in J&K is around 2.28 kg which is much higher than the national average of around 1.39 kg.

More than 2,00,00c people are associated with sheep rearing from wham the wool is collected and sent for processing outside Jammu and Kashmir. The Jammu and Kashmir Government has taken several initiatives to upgrade the quality of livestock by promoting wool production through appropriate selection and breeding methods.

Presently, Jammu and Kashmir sells 70% of its wool in raw form due to lack of wool processing units within the UT. Despite producing over 70-75 lakh kg of raw wool, .J &K does not have adequate processing units/ facilities to value add and as a result lion's share of raw wool is exported to other parts of the country at meagre rates. A large quantity of raw wool is also sold to Rajasthan. The fact remains that during transit, quality of raw wool deteriorates due to dust and dirt thereby adding to transportation and handling costs.

The Handloom and Handicrafts Policy shall focus on making available adequate supply of raw material like wool and silk yarn available to weavers and craftsmen, preferably on Mill Gate Price. The policy shall focus on availability of quality raw material through raw material banks/ yam banks for which establishing of wool and silk sinning mills in MSME sector shall be encouraged.

Handloom and Handicrafts scenario: Handlooms and Handicrafts is one of the traditional sectors contributing significantly towards the economy of Jammu and Kashmir. In fact, the twin sector is one of the major and oldest in the country having 43 million weavers and 6.9 million artisans involved directly or indirectly.

Attachment 2

Sheep Wool and Mutton: Production and Value Addition

Fig. 13.1 Trend of wool production in India (MOA, Govt. of India report)

Table 13.2 Wool production in India

State	Sheep population	No. of families	Wool quality	Wool Production	Woolen Products produced	Wool Price
	(‘000)	(In lakhs)		(‘000 Kg.)		(Rs./kg)
Jammu & Kashmir	3389.49	0.85	Apparel Grade 24-28 µ	7411	Handloom, shawls, Carpets, Namda & tweed fabric	80-110
Himachal Pradesh	804.87	0.40	Apparel Grade 22-28 µ	1500	As above	40-90
Uttarakhand	368.76	0.17	Apparel Grade 22-28 µ	558	As above	30-120
Rajasthan	9079.70	2.50	Carpet Grade 28-38 µ	13924	Carpet, Handloom shawls, Suiting’s	30-110
Uttar Pradesh	1353.65	1.10	Carpet Grade 28-38 µ	1404	Carpet, Handloom shawls, Suiting’s	30-60
Madhya Pradesh	308.95	0.15	Carpet Grade 30-38 µ	414.52	Yarn	30-60
Gujarat	1707.75	0.16	Carpet Grade 28-38 µ	2267	Yarn, suiting’s Handloom shawls	30-110
Maharashtra	2580.38	1.03	Carpet Grade 28-75 µ	1418	Yarn, suiting’s & Handloom shawls	10-30
Karnataka	9583.76	5.33	Coarse Grade 28-75 µ	4392	Coarse quality rugs	10-30
Telangana & Andhra Pradesh	26395.58	9.34	Coarse Grade 28-75 µ	5593	Coarse quality rugs & shawls	10-30
Total	**65000**	**20 lakh**		**41475**		

Table 13.2 describes state-wise wool production, quality, and price along with sheep population and number of families supported by sheep husbandry. Rajasthan (33%), J & K (18%), Karnataka (10%), Telangana, and Andhra Pradesh (13%) are major wool-producing states/union territory. These states contribute about 75% of the total wool produced in the country. The rest of the wool is produced by other states i.e., Himachal Pradesh, Uttrakhand, Madhya Pradesh, Maharashtra.

Attachment 3**: Attached separately as **Annex 4A

Attachment 4**: Attached separately as **Annex 4B

Commentator: IICT, SRINAGAR

Comment:

Dear Sir,

The undersigned has gone through the draft standards and found them in line with the discussions held in the meeting. As such, no specific comments from my side and you may go ahead, please.
Thank you.

Regards,
Zubair Ahmad,
Director,
Indian Institute of Carpet Technology,
Srinagar, Jammu and Kashmir.

Commentator: NORTHERN RAILWAYS

Comment:

The lining fabric should be with raised finish

1.1 The blanket shall be manufactured in Plain/Tartan (*see* Fig. 1 for design reference and Fig. 2 for colour reference) or Geometric pattern (*see* Fig. 1 for design reference and Fig. 2 for colour reference), or as agreed between buyer and seller and shall be milled, and given a raised finish.

1.2 The blankets shall be manufactured using the stock dyed wool, whereas the polypropylene and nylon fibers used for manufacturing the blankets shall be either dope dyed or fibre dyed.

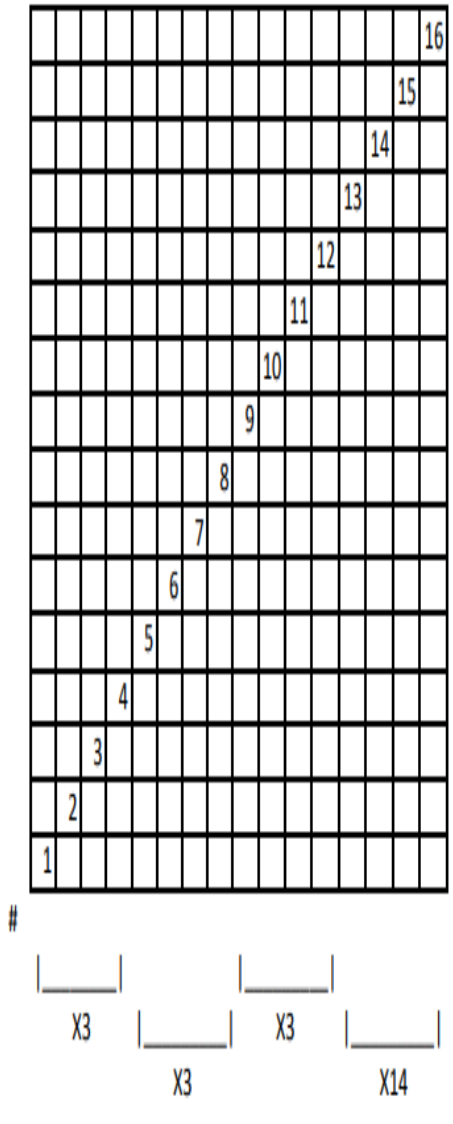
FIG 1 GEOMETRIC PATTERN

FIG 2 GEOMETRIC PATTERN

In Geometric Figure 2 the Pantone to be used for body color will be 19-1522 TCX and for Geometric Pattern Pantone 18-1250 TCX to be used.

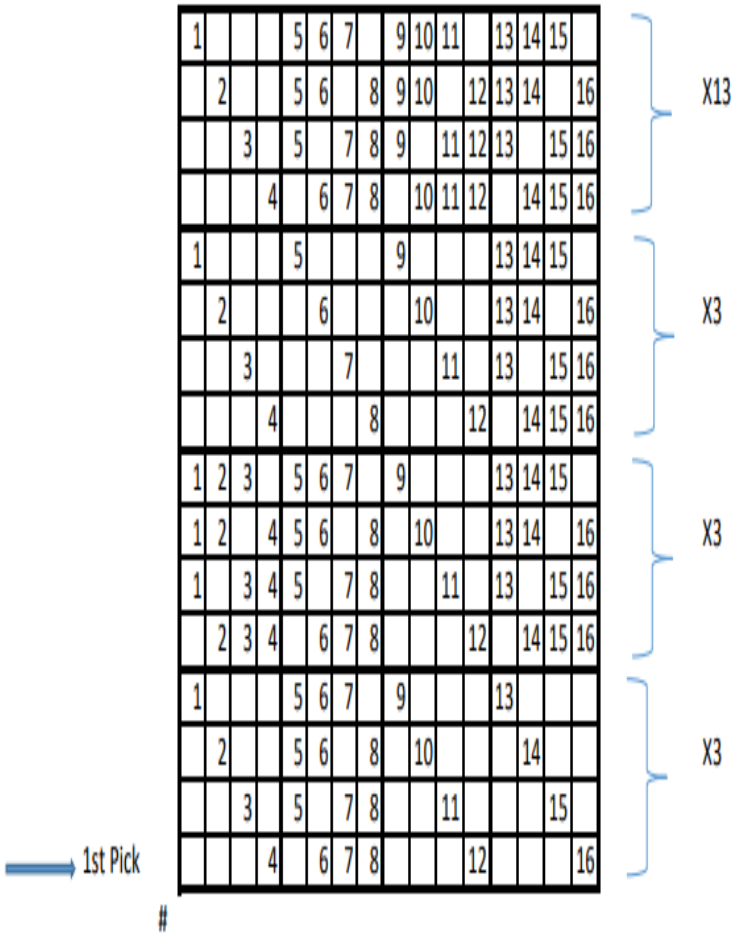
DRAFT PLAN FOR WEAVING

DRAFT



Total 92 Ends Per Repeat

PEG PLAN



Total 88 Picks Per Repeat

Commentator: Shri Makarand Mehendale, Obeetee Private Limited, Bhadohi

Comment:

DOCUMENT NO : [Doc :TXD 04 (24805)]

Item, Clause Sub-Clause No. Commented upon (Use Separate Box afresh)	Comments	Specific Proposal (Draft clause to be add/amended)	Remarks	Technical References on which (2), (3), (4) are based
(1)	**(2)**	**(3)**	**(4)**	**(5)**
5.2 SL NO xv c) ii	Wet Rubbing	4 or better	Should be revised to 3 or better	

ANNEX 5
(*Item* **5.1**)

WORKING DRAFT ON 'HANDMADE PASHMINA CARPET'

No. IICT/DIR/324/2023-24/926
15th March, 2024

Chairman,

Wool, Wool Products and Textile Floor Covering,
Sectional Committee, TXD 04,
Bureau of Indian Standards, New Delhi.

Subject: Working Draft on Handmade Pashmina Carpet.

Sir,

Kindly refer to the minutes of the 27th meeting of Sectional Committee, TXD 04 held on 12th January, 2024 at 11:Q0 a.m. through video conferencing mode wherein a panel of experts was constituted for discussing I finalizing the draft standards as received by the Bureau of Indian standards from Indian Institute of Carpet Technology, Srinagar, Jammu & Kashmir.

In this connection, it is hereby informed that the meeting of the experts, comprising of Mr. Zubair Ahmad, Director, Indian institute of Carpet Technology, Srinagar, Dr. S. Periyasamy, Director, Central Silk Technological Research Institute (CSTRI), Bangalore, Dr. Hina Quazi, Craft Development Institute, Srinagar, Mr. Shahnawaz Sofi, Pashmina Carpet Manufacturer, Mr. Sanaullah Khanday, Technical Expert and Mr. Umar Amin, Technical Assistant, was held on 06.02.2024 in the office chamber of the undersigned in the hybrid mode.

After threadbare discussion, the above pane! approved the Draft Standards for Pashmina Carpet and the same are annexed herewith for further necessary action at your end, please.

Yours faithfully

Indian Institute of Carpet Technology,
Srinagar, Jammu and Kashmir.

Enclosures:
03 (Three)

TEXTILE FLOOR COVERING — HANDKNOTTED PASHMINA CARPETS SPECIFICATION

1. SCOPE

This standard specifies requirements for hand knotted pashmina carpets and rugs.

2. REFERENCES

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

3. TERMINOLOGY

For the purpose of this standard, the definitions given in IS 11205 shall apply.

4. MANUFACTURE

4.1 Pile Yarn

The pile yarn shall be natural pashmina only. The pile yarn shall not be dyed with banned azo dyes.

4.2 Method of Knotting and Weaving

The details of six popular methods used in the manufacture of pashmina carpets are given in 157877 (Part 2). Three types of knots viz single knot, double knot or Tibetan knot are used.

4.3 Selvedge

The selvedge of pashmina carpets shall be bound with silk yarn 60s Nm (10 ply).

4.4 Transverse Ends

Each transverse end of the carpet shall be finished with Silk Yarn in plain or tapestry weave of at least 1.5 cms length followed by a knotted or netted fringe of at least 5 cm length with 60s Nm (10 ply).

4.5 Construction

The washed and finished carpets shall be firmly and uniformly woven. It shall be free from constructional defects. It shall not show any creases and wrinkles when laid on a flat surface.

4.5 In case carpet is given a chemical washing treatment to obtain a lustrous finish, it shall be ensured that pH of the carpet surface shall be in the range 6 to 7.5 when measured by the method given in IS 1390.

5. REQUIREMENTS

5.1 Length and Width

The length and width of the carpet shall be as agreed between the buyer and the seller or as declared by the seller.

5.1.1. A tolerance of t 3 percent subject to a maximum of 10 cm shall be permissible on the declared length and width of the carpet when determined by the method given in IS 7877 (part5)

5.1.2 The difference between the measurement of two diagonals of the carpet shall not exceed by more than 2 percent.

5.2 Pile Yarn

The pashmina content of pile yarn shall not be less than 97 percent with count of 120s Nm (5-10 ply) when tested by the method given in lS 17269:2021.

5.3 Warp and Weft Yarn

5.3.1 Warp Yarn

The warp yarn shall be silk yarn with yarn count 60s Nm (10 ply).

5.3.2 Weft Yarn

Weft yarn used for hand knotted carpets are of two types:

a. Thick Weft: Thick weft shall be silk yarn with 60 Nm 12 ply and
b. Thin weft: Thin weft shall be silk yarn with 60 Nm 2 ply.

5.4 Number of Knots

The number of knots of the carpets shall be agreed between the buyer and the seller or as declared by the seller subject to a minimum of 50 knots per square centimeter. However, a tolerance of minus 5 percent shall be permissible on the declared/agreed number of knots

5.4.1 The average number of knots in the carpet shall be determined by the method given in 1578877 (Part 3)

5.5 Pile Height

The Pile Height of the carpets shall be as agreed between the buyer and the seller or as declared by the seller. The Pile height shall be determined by the method given is IS 7877 (part 4). However, a tolerance ± 1 mm shall be permissible on declared/agreed pile height.

5.6 Colour Fastness

The carpet shall conform to the colour fastness ratings as given in table 1.

5.7 Mouth Resistance

The carpet shall be rendered moth resistant by a suitable treatment given in IS 1162 if required by the buyer or declared by the seller. However, in case moth resistant treatment not specified in IS 1162 is used, the type of preservative agent, method of its application, amount applied and method of its determination shall be a matter of prior agreement between the buyer and the seller. In both the cases the manufacturer shall declare the residual content of the chemicals used.

5.8 Free from Defects

The carpets shall be free from major defects given below when visually examined:

a. Hole, cut or tear in the body of the carpet.
b. Presence of any crease or wrinkles when laid on a flat surface; and
c. Any other prominent defect which would mar the appearance or serviceability of the carpet.

5. Labelling

5.1 A white label or paper sticker of preferably 10 cm x 7.5 cm in size, marked with the following information shall be securely attached to one of the corners on the back of the carpet:

a. Name of the product for example Indian hand knotted pashmina carpet
b. Quality that is number of knots per 2.5 cm in both warp and weft directions
c. Pile height
d. Size of carpet, that is length x width in cm.
e. Moth resistance, if required and residual content of the chemical used.
f. Manufacturers name, initials or trade mark, if any.
g. Any other specific treatments given to carpet, for example- Herbal washed, chemically washed.

h. Carpet laying and cleaning instructions and
i. Any other information/instruction provided by the manufacture/ required under law.

6.2 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment scheme under the provision 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.

6. Packaging

Unless otherwise agreed, the carpets shall be packed by the method given in IS 5756.

Table 1 Requirement of Colour fastness Properties for Hand knotted Silk Carpet (Clause 5.6)

Sl No.	Characteristics	Requirement	Method of Test, Ref to
(1)	(2)	(3)	(4)
i.	Colour fastness to light change in colour	4 or better	IS/ISO 105-B01 or IS/ISO 105- B02
ii.	Colour fastness to hot water, change in colour	4 or better	IS 14446
iii.	Colour fastness to dry cleaning (vapour phase cleaning) a. Change in Colour b. Staining of the solvent	 3 or better 3 or better	IS/ISO 105-D01 …….. ……..
iv.	Colour fastness to rubbing, change in colour	3 or better	IS/ISO 105-X12
v.	Colour fastness shampooing, change colour	3 or better	IS 11969

ANNEX 6
(*Item* **6.1**)

EXTRACT OF 'ISO/TS 21868:2023 TEXTILE FLOOR COVERINGS — STATE OF THE ART ON MAINTENANCE AND CLEANING'

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 219, *Floor coverings.*

This second edition cancels and replaces the first edition (ISO/TS 21868:2021), which has been technically revised.

The main changes are as follows:

- — clarifications to the terms and definitions were added;
- — clarifications to the requirements were added;
- — Table 1 "Fibre identification burn test" was deleted.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document is designed for legislators, related enterprise associations, textile floor coverings manufacturers, and textile floor covering maintenance and cleaning enterprises to develop their own specific textile floor covering maintenance or/and cleaning standards or procedures in accordance with the local conditions. Due to diversity of different regions in climates, customs and developing levels in the world, it is extremely difficult to create a specific textile floor covering maintenance and cleaning standard as a template which is globally workable. In addition, the factors which impact the result of cleaning are so abundant and the combinations of these factors are so tremendous that particular programmes are necessary to acquire the best result of textile floor covering cleaning.

This guidance standard manages to list all the factors which affect the final results of cleaning, against which legislators, relative enterprises associations and textile floor covering maintenance and cleaning enterprises are able to establish the above-mentioned particular programmes (procedures or criteria) in their standards accordingly. Therefore, this standard is not intended to be used by end-users to perform any specific maintenance and cleaning jobs.

This comprehensive guidance standard is intended to pave the way for legislators and related enterprise associations to establish specific standards for:

- — regulating the development of the textile floor covering cleaning industry,
- — promoting the development of the textile floor covering cleaning detergent and equipment industry,
- — improving textile floor covering cleaning techniques, and
- — improving sales of textile floor coverings,

since specific textile floor covering maintenance and cleaning standards are still absent in most nations.

NOTE The term "textile floor coverings" applies to wall-to-wall carpets, broadloom carpets, rugs, mat and tile carpets.

1 Scope

This document gives guidelines for the development of specific textile floor covering maintenance and cleaning standards, procedures and criteria to reflect local specific conditions. This document specifies the factors which will impact the final results of textile floor covering cleaning, defining maintenance and cleaning terms to highlight differences. It establishes textile floor covering maintenance and cleaning as achieving a low-cost, non-residue and environmentally friendly cleaning under the premise of maximizing the use value of textile floor covering.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- — ISO Online browsing platform: available at https://www.iso.org/obp
- — IEC Electropedia: available at https://www.electropedia.org/

3.1
soil

any matter that is foreign to the construction of the textile floor covering

Note 1 to entry: Soil includes spill, spot, stain, and residue.

3.2

spill

wet, dry, oily or combination states of matter that are accidentally deposited on the textile floor covering

Note 1 to entry: Depending on the composition of the spill, quick response time and cleaning procedures can assist in minimizing the probability of a spill becoming a spot or a stain.

3.3

spot

foreign material on the surface of a fibre, usually changing the texture of the fibre

EXAMPLE:

Sticky, oily, greasy, stiff.

Note 1 to entry: Spots can usually be removed. However, some spots, if left untreated for too long, can become stains.

3.4

stain

indication of the addition of colour, frequently in liquid or pigment form that has been strongly attracted to the textile floor covering fibre

Note 1 to entry: This added dye or pigment can bind to a dye site and actually alter the structure of the fibre. Not all stains respond positively to removal efforts.

3.5

residue

the foreign materials left in the cleaned textile floor coverings, which is originated from the detergents

3.6

interim cleaning

removal of topical appearance soil from textile flooring and return of the textile floor covering to a dry and usable state within a short period of time

3.7

restorative cleaning

thorough removal of soil both on the textile floor covering surface and embedded within the textile floor covering construction

ANNEX 7

(*Item* 7.1)

NEW WORK ITEM PROPOSAL ON 'BROADLOOM CARPET'

Part - 1

Organization Type: Industry/Industry Association

1. Name of Proposer	Vinod Kumar
2. Email ID	qms@witlon.in
3. Phone	9446427498
4. Address	Wilton Weavers Pvt Ltd , Kalavamkodam , Cherthala , Alappuzha, Kerala

Part - 2

5. Proposed title of Standard	Broadloom wool carpet
6. Aspect	Others
7. Define subject of standard	Broadloom carpets are specially designed for Floor covering and wall to wall , Made from natural wool and dyed wool. The standardization of wool carpet involves establishing guidelines and specifications that ensure consistent quality, performance, and safety of woolen carpets produced and sold in the market.
8. Most Relevant Technical Department	TXD (Textiles Department)

Part - 3

9. Scope of proposed standard	This standard would establish the quality safety and performance of broadloom carpets made from 100 percent wool , or combination of wool and nylon meeting the needs of various residential and commercial applications.
10. Purpose and Justification	the proposed standard for broadloom wool carpet is justified by its ability to ensure quality safety ,

	consistency, regulatory compliance and environment responsibility
11. Likely users of standards and their inputs	manufacturer
12. Any related standards/series of standard/system standard required to make this subject standard complete	No
13. When the final standard would be required	30-09-2024
14. Any specific problem being faced without this standard	Not known
15. Bearing with Govt legislation regulation, etc	Na
16. Name and address of manufacturers/ implementing/ industries/ purchasing organization /component supplier/ raw material supplier, if any	No
17. Status of the industry in the country	Not known
18. Availability of test facilities in the country	yes
19. Whether related to variety reduction, export, health, safety consumer protection, mass consumption, energy conservation, technology transfer, technology upgradation, protection of environment & other National priorities	yes
20. Whether subject requires consideration to be given to women/girl issues in line with Sustainable Goal 5 of the UN. If so, whether the issues are proposed to be addressed suitably in the proposed standard	No
21. Relevant supportive document (download docs)	

22. R & D work done in india	Yes
23. Any foreign collaboration (give details)	No
24. Liaison with any organisation(s)	No
25.A. Preparatory work	No draft possible
25.B. Preparatory work (Details)	not yet started
26. Whether this project can be funded by your organization	No
27. Whether your organisation would be interested to opt for BIS Standard Mark once the standard is published?	Yes
28. Any Other Attachment (extra)	

Product Specification Sheet

Warp yarn used :	Wool ,Wool nylon, Nylon , Poly proplyelene , SDA
ii) Weft	PP , JUTE
iii) Backing Material & gsm	Jute, PP ,Polyester, Polycotton, Glass viscose
iv) Pile GSM, Pile density, Pile thickness	Min 800/ minimum 230 / Min 3 mm
v) Delamination force	Not known
vi) Tuft withdrawal force	Min 1.5 cut pile & 2.5 for loop pile
vii) Stain resistance to red dye	≥ 6
viii) Requirement for volatile organic compound	500 $\mu g/m^2/h$
ix) Change in appearance (Method of test and requirement)	Hexapod
x) Dimensional Stability	ISO 2551
xi) Flammability Requirement	16CFR1630

xii) Colour Fastness to light, washing, rubbing, shampooing etc.	Colour fastness to rubbing (ISo105-X12)/ Colour fastness to water(IS ISO 105 E 01)/shampooing(IS 11969) / colur faster to light(IS ISO 105 -B02)
xiii) Any other requirements	-

ANNEX 8
(*Item* 8.1)

LIST OF STANDARDS DUE FOR REVIEW UNDER TXD 04

Sl. No.	IS Number	IS Title	Last Reaffirmation Year	Due Date
1	IS 10466 : 1983	Guide for care and maintenance of carpets	2020	March, 2025
2	IS 10921 : 1984	Specification for carpet yarn made from virgin wool	2020	March, 2025
3	IS 11206 : 1984	Glossary of textile terms — Wool and other animal fibres, their processing and products	2020	March, 2025
4	IS 12811 : 1989	Worsted lohis — Specification	2020	March, 2025
5	IS 12812 : 1989	Worsted shawls — Specification	2020	March, 2025
6	IS 12838 : 1989	Blazer cloth — Specification	2020	March, 2025
7	IS 12848 : 1989	Wool/polypropylene blended blankets — Specification	2020	March, 2025
8	IS 14291 : 1995	Textiles — Woollen shoddy yarn — Specification	2020	March, 2025
9	IS 14292 : 1995	Textiles — Shoddy woollen barrack blankets — Specification	2020	March, 2025
10	IS 1530 : 1981	Specification for baize cloth (*second revision*)	2020	March, 2025
11	IS 5641 : 1993	Textile floor covering — Handmade wool carpets — Specification (*second revision*)	2020	March, 2025
12	IS 5756 : 1970	Code for packaging of carpets	2020	March, 2025
13	IS 675 : 1973	Specification for bunting, worsted (second revision)	2020	March, 2025
14	IS 741 : 1971	Code for inland packaging of woollen and worsted yarn and cloth (*first revision*)	2020	March, 2025
15	IS 677 : 1974	Specification for cloth drab-mixture, woollen, water-resistant (*second revision*)	2020	March, 2025
16	IS 697 : 2005	Textiles — Druggets (DURRIES) made from wool, camel hair and goat hair — Specification (*first revision*)	2020	March, 2025

17	IS 5884 : 2020	Textile Floor Covering — Hand Tufted Carpets — Specification (*third revision*)	0	March, 2025
18	IS 11205 : 2011/ ISO 2424 : 2007	Textile floor coverings — Vocabulary (*first revision*)	2020	March, 2025
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 (*first revision*)	0	March, 2025
20	IS 17396 : 2020	Textile floor coverings — Assessment of changes in appearance	0	March, 2025
21	IS 17478 : 2020	Textile Floor Covering — Wall to Wall Carpets Made of Polyamide (Nylon) Yarn — Specification	0	March, 2025
22	IS 17479 : 2020	Textile Floor Covering — Carpet Tiles Made of Polyamide (Nylon) Yarn - Specification	0	March, 2025
23	IS 17474 : 2020/ ISO 10833 : 2017	Textile Floor Coverings — Determination of Resistance to Damage at Cut Edges Using the Modified Vettermann Drum Test	0	March, 2025
24	IS 17476 : 2020/ ISO 10580 : 2010	Resilient, Textile and Laminate Floor Coverings — Test Method for Volatile Organic Compound (VOC) Emissions	0	March, 2025
25	IS 17477 : 2020/ ISO 4918 : 2016	Resilient, Textile and Laminate Floor Coverings — Castor Chair Test	0	March, 2025
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	0	March, 2025
27	IS 17488 : 2020/ ISO 11857 : 1999	Textile Floor Coverings — Determination of Resistance to Delamination	0	March, 2025
28	IS 17489 : 2020/ ISO 13750 : 2000	Textile Floor Coverings — Determination of Resistance to Staining by Acid Food Colours	0	March, 2025
29	IS 17490 : 2020/ ISO 6356 : 2012	Textile and Laminate Floor Coverings — Assessment of Static Electrical Propensity — Walking Test	0	March, 2025

ANNEX 8
(*Item* 8.2)

LIST OF PRE- 2000 STANDARDS UNDER TXD 04

Sl. No.	IS No.	IS Title
1	IS 11206 : 1984	Glossary of textile terms — Wool and other animal fibres, their processing and products
2	IS 12811 : 1989	Worsted Lohis — Specification
3	IS 12812 : 1989	Worsted shawls — Specification
4	IS 12838 : 1989	Blazer cloth — Specification
5	IS 12848 : 1989	Wool/polypropylene blended blankets - Specification
6	IS 13904 : 1993	Textiles — Serge, drab, polyester — Wool blended – Specification
7	IS 14291 : 1995	Textiles — Woollen shoddy yarn – Specification
8	IS 14292 : 1995	Textiles — Shoddy woollen barrack blankets — Specification
9	IS 1530 : 1981	Specification for baize cloth (*second revision*)
10	IS 675 : 1973	Specification for bunting, worsted (second revision)
11	IS 677 : 1974	Specification for cloth drab-mixture, woollen, water-resistant (second revision)
12	IS 679 : 1993	Textiles – Great coat cloth – Specification (third revision)
13	IS 680 : 1993	Textiles – Cloth barathea – Specification (third revision)
14	IS 741 : 1971	Code for inland packaging of woollen and worsted yarn and cloth (first revision)
15	IS 7747 : 1993	Textiles – Hand-knitting wool yarn, worsted – Specification (first revision)