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BUREAU OF INDIAN STANDARDS
(New Delhi)

AGENDA

HANDLOOM AND KHADI SECTIONAL COMMITTEE, TXD 08

18th Meeting

Date/Day	Time	Venue
29 November 2023 Wednesday	1100 h	Through CISCO Webex Video Conferencing

CHAIRMAN: Shri Vishesh Nautiyal, Weavers Service Centre, Delhi

MEMBER SECRETARY: Shri Swapnil, Bureau of Indian Standards, New Delhi

Item 0 WELCOME & INTRODUCTORY REMARKS

Item 1 CONFIRMATION OF MINUTES OF THE PREVIOUS MEETING

1.1 The minutes of the 17th meeting of the committee held on 17 July 2023 through VC were circulated vide BIS Directorate General letter No. TXD 08/A2.17 dated 16 August 2023. Comment received from Dr. P Thennarasu, Indian Institute of Technology, Varanasi is given in **Annex 1 (Page 4)**.

1.1.1 The Committee may **DECIDE**.

Item 2 SCOPE AND COMPOSITION OF TXD 08

2.1 The present scope and composition of the Committee is given in **Annex 2 (Pages 5 to 6)**.

2.1.1 The committee may **REVIEW**.

Item 3 ISSUES ARISING OUT OF THE PREVIOUS MEETINGS

3.1 Summary of actions taken on the various decisions of the previous meetings are given in **Annex 3 (Page 7)**.

3.1.1 The Committee may **NOTE**.

Item 4 REVIEW OF PUBLISHED STANDARDS

4.1 In the 17th meeting, the committee considered the following standards due for review under the five year review criteria which were allocated as given below:

a) Dr. P Thennarasu, Indian Institute of Technology, Varanasi

SI No.	IS Number	IS Title
1	IS 1101 : 1981	Specification for handloom cotton cellular shirting (first revision)
2	IS 1451 : 1979	Specification for handloom cotton drills (first revision)
3	IS 753 : 1983	Specification for handloom cotton pugri cloth, bleached or dyed (second revision)
4	IS B753 : 1983	Handloom Cotton Pugri Cloth, Bleached or Dyed (bi-lingual)

b) Shri Swapnil, Member Secretary TXD 08

SI No.	IS Number	IS Title
1	IS 3769 : 2019	Textiles – Pugree cloth, cotton khadi, bleached or dyed – Specification (second revision), (first revision)
2	IS 3770 : 2019	Textiles – Dosuti, cotton khadi, bleached or dyed – Specification (second revision)
3	IS 3771 : 2019	Textiles – Long cloth, cotton khadi, bleached – Specification (second revision)
4	IS 3777 : 2019	Textiles – Dusters, cotton khadi, bleached – Specification (second revision)
5	IS 3778 : 2019	Textiles – Dungri cloth, cotton khadi, bleached – Specification (second revision)
6	IS 3779 : 2019	Textiles – Sheeting cloth, cotton khadi, bleached – Specification (second revision)
7	IS 3781 : 2019	Textiles – Honeycomb and huckaback towels, Cotton khadi, bleached or dyed – Specification (second revision)
8	IS 4106 : 2019	Textiles – Bunting cloth, cotton khadi, dyed – Specification (second revision)

c) Shri Anil Kumar Singh, Rastriya Khadi Gramodyog Federation, Moradabad

SI No.	IS Number	IS Title
1	IS 3773 : 1994	Textiles – Napkins and table cloth, cotton khadi, bleached – Specification
2	IS 4371 : 1994	Textiles – KAMBLIES, wool khadi, loomstate –Specification (first revision)
3	IS 3784 : 1994	Textiles – Cloth, cotton khadi, bleached, for general purposes – Specification (first revision)

d) Shri P Nallamuthu, Khadi & Village Industries Commission, New Delhi

SI No.	IS Number	IS Title
1	IS 4107 : 1994	Textiles – Blanketing cloth wool khadi (first revision)
2	IS 4372 : 1994	Textiles – Cloth, twill, wool khadi, dyed – Specification (first revision)

4.1.1 The review analysis/proformas of the standards allocated to Shri Swapnil, Member Secretary TXD 08 were circulated to members for 15 days through BIS Standards Portal for eliciting technical comments as given in **Annex 4 (Pages 8 to 46)**.

4.1.2 The committee may **DECIDE**.

Item 5 RESEARCH AND DEVELOPMENT PROJECT

5.1 The subjects ‘IS 12388 : 1988 Specification for handloom cotton voile’ and ‘IS 3772 : 1994 Textiles – Mazri, cotton khadi, scoured – Specification’ were identified in 17th meeting for the formulation of revised standard under TXD 08. It is proposed that these subjects may be taken up as an R&D project and term of reference (ToR) for the same is given in **Annex 5 (Pages 47 to 50)**. BIS guidelines for the R&D project is given in **Annex 6 (Pages 51 to 70)**.

5.2 The committee may **DECIDE**.

Item 6 DATE AND PLACE OF NEXT MEETING

Item 7 ANY OTHER BUSINESS

Annex 1
(Item 1.1)

**COMMENTS RECEIVED FROM DR. P THENNARASU, INDIAN INSTITUTE OF
TECHNOLOGY, VARANASI**

Dear sir,

Received the minutes of 17th meeting of TXD 08 wherein under item no.3, it was requested to provide the inputs related to National Flag made of polyester within 7 days. In this regard, I think that at the time of discussions during 16th meeting, it was told that a sample fabric of polyester flag would be sent for comment which is not received yet at my end. **You are therefore requested to send the sample polyester fabric which is meant for National Flag.** After receipt of the sample fabric, I require normally 2 weeks time to give the required inputs. However, if my official engagements permits at that time, I will give the required inputs within a week time of receipt of the same.

Regarding point no.6.1.1 **since I was not present in the meeting, what was discussed is not known to me. Therefore, I request you to assign this R&D work to another member of TXD 08 committee, the Director, IIHT Jodhpur who was present in the meeting.**

with regards

Dr. P. Thennarasu
Director, IIHT Varanasi

ANNEX 2
(Item 2.1)

**SCOPE AND COMPOSITION OF HANDLOOM AND KHADI SECTIONAL
COMMITTEE, TXD 08**

Scope: To formulate Indian standards for terminology, grading and specifications for handloom and khadi fabrics.

Meeting(s) held

15th Meeting

16th Meeting

17th Meeting

Date & Place

17 December 2021 (Video Conferencing)

13 July 2022 (Video Conferencing)

17 July 2023 (Video Conferencing)

Sl No.	NAME OF THE ORGANISATION	REPRESENTED BY	ATTENDANCE
1.	Weavers Service Centre, Delhi	Shri Vishesh Nautiyal (Chairman) Shri Vikas Kumar (Alternate)	3/3
2.	Baster Adimjati Sewak Sangh, Baster	Shri Sumit Das Shri Amit Das (Alternate)	0/3
3.	Central Pollution Control Board, New Delhi	Shri P K Mishra Shri Rishabh Srivastav (Alternate)	1/2
4.	CRPF, New Delhi	Shri D P Upadhyay Shri Sanjeev Kumar Singh (Alternate)	1/3
5.	Department of Handlooms & Textiles, Chennai	Shri T P Rajesh Dr. K Karnan (Alternate)	3/3
6.	Gandhigram Rural Institute, Dindigul	Nomination Awaited	0/0
7.	Haryana Khadi Gramodyog Sangh, Karnal	Shri Pawan Garg Shri R S Yadav (Alternate)	1/3
8.	ICAR – Central Institute for Research on Cotton Technology, Mumbai (CIRCOT)	Dr. Sujata Saxena Dr. A.S.M. Raja (Alternate)	0/0
9.	Indian Institute of Handloom Technology, Varanasi	Dr. P Thennarasu	2/3
10.	Indian Institute of Handloom Technology, Jodhpur	Dr. J Sivagnanam	1/3
11.	Indo Tibetan Border Police, New Delhi	Shri Uttam Kumar Shri Anand Kumar (Alternate)	2/3
12.	Jan Sewa Ashram, Aligarh	Shri R K Sharma Shri Akhilesh Kumar Awasthi (Alternate)	3/3
13.	Karnatka Khadi Gramodyog Samyuktha Sangha, Hubli	Shri K V Pattar Shri Shivananda S (Alternate)	1/1

14.	Khadi & Village Industries Commission, New Delhi	Shri P Nallamuthu Shri Ram Narayan (Alternate)	2/3
15.	Khadi Dyers & Printers, Mumbai	Shri D N Bhatt Shri V D Joshi (Alternate)	3/3
16.	Khadi Gramodyog Mandal, Rampur	Shri Rakesh Chaudhary Shri Prince Chaudhary (Alternate)	3/3
17.	Kshetriya Khadi Gramodyog Samiti, Dausa	Shri R K Singh	1/3
18.	Madhya Bharat Khadi Sangh, Gwalior	Smt. Neelu Mekle Shri Harish Mekle (Alternate)	2/2
19.	Mahatma Gandhi Institute for Rural Industrialization, Wardha	Shri Mahesh kumar Dr. Tapan Ranjan Kar (Alternate)	0/0
20.	Metpalli Khadi Gramodyog Pratisthan,	Shri G Madhav	0/3
21.	Ministries of Defence (DGQA), New Delhi	Shri Arvind Compathane Shri N Senthil Kumar (Alternate)	1/3
22.	Ministries of Health, New Delhi	Nomination Awaited	0/0
23.	National Handloom Development Corporation Ltd., Gautam Budh Nagar	Dr. Sakthivel Perumal Samy Shri Jitendra Tolambiya (Alternate)	1/3
24.	Northern Railways, New Delhi	Shri Sudhanshu Kumar Gupta	0/3
25.	Northern India Textile Research Association, Ghaziabad	Dr. M S Parmar Shri Sanjeev Shukla (Alternate)	3/3
26.	Office of The Development Commissioner for Handlooms, New Delhi	Shri Siddharth Singh Shri Vinay Kumar (Alternate)	2/3
27.	Rastriya Khadi Gramodyog Federation, Moradabad	Shri Anil Kumar Singh Shri Kuldeep Singh (Alternate)	0/3
28.	Sushil Gramodyog Sanstha, Ghaziabad	Shri Sunil Tyagi	1/3
29.	Swastik Gramodyog Samiti, Delhi	Shri M L Pathak Shri Abhishek Dixit (Alternate)	2/3
30.	Textiles Committee, New Delhi	Shri Kartikay Dhanda Smt. Shilpi Chauhan (Alternate)	1/3
31.	The Cotton Textiles Export Promotion Council (TEXPROCIL)	Dr. Siddhartha Rajagopal Shri Rajesh Satam (Alternate)	0/1
32.	The Handloom Export Promotion Council, Chennai	Dr. M. Sundar Shri N. SREEDHAR (Alternate)	2/3
33.	The Tamil Nadu Handloom Weavers' Cooperative Society Ltd, Chennai	Shri T. N. Venkatesh, I.A.S Shri K. Kathiresan (Alternate)	0/3

ANNEX 3
(Item 3.1)

**SUMMARY OF ACTIONS TAKEN ON THE MINUTES OF THE PREVIOUS
MEETINGS OF TXD 08**

Item No.	Decision	Action taken
2.1	SCOPE AND COMPOSITION OF TXD 08	Updated composition is given in Annex 1
3.1	<p>a) In the 16th meeting of TXD 08, the committee constituted a panel to finalize the colours of National flag of India (Orange, white, green, and navy blue) after comparing the samples for X, Y, Z, L, C, H and Δ E values of National flag so received from M/s Madhya Bharat Khadi Sangh and M/s Khadi Dyers and printers, Mumbai by convening a physical meeting.</p> <p>b) The committee requested M/s Khadi Dyers and Printers, Mumbai and M/s Madhya Bharat Khadi Sangh, Gwalior to provide inputs on the following aspects of National Flag:</p> <p>i) Details regarding joining of different panels of National Flag of India for size 9000 × 6000 mm.</p> <p>ii) Details of folding of National Flag of India.</p> <p>iii) Requirement for packaging of National Flag of India.</p> <p>iv) Requirement for number of stitches of National Flag of India.</p> <p>v) Requirement for seam slippage of National Flag of India when tested as per IS/ISO 13936 (Part 1) : 2004 Textiles – Determination of the slippage resistance of yarns at a seam in woven fabrics Part 1 Fixed seam opening method.</p>	<p>Samples received from M/s Khadi Dyers and M/s Madhya Bharat Khadi Sangh. Panel meeting shall be conducted shortly.</p> <p>Inputs awaited on SI No. (v).</p>
4.1	DRAFT STANDARDS FOR FINALIZATION In the 17 th meeting of TXD 08, committee finalized 30 draft standards for publication as Indian standards.	Under publication as Indian Standards.
5.1	REVIEW OF PUBLISHED STANDARDS In the 17 th meeting of TXD 08, committee decided that draft standards based on review analysis/perfomas except IS 1 : 1968 Specification for the national flag of India (Cotton khadi) (<i>second revision</i>) and IS B1 : 1968 Specification for the national flag of India (Cotton khadi) (<i>second revision</i>) (<i>Bilingual</i>) shall be issued in wide circulation for a period of 2 months for eliciting technical comments after incorporating editorial changes, if any.	WC Draft under preparation.
7	STANDARD FOR POLYESTER FABRIC FLAG In the 16 th meeting, the committee requested M/s Khadi Dyers and printers, Mumbai and Dr. Thennarasu P of Indian Institute of Handloom Technology, Varanasi to provide the required inputs on National Flag made of Polyester.	Inputs awaited.

ANNEX 4
(Item 4.1.1)

REVIEW ANALYSIS/PROFORMAS

IS 3769 : 2019

- 1. Sectional Committee No. & Title:** TXD 08, Handloom and Khadi Sectional Committee
- 2. IS No:** IS 3769 : 2019
- 3. Title:** Textiles – Pugree cloth, cotton khadi, bleached or dyed – Specification (second revision), (first revision)
- 4. Date of review:** 30 October 2023
- 5. Review Analysis**
 - i) Status of standard(s), if any from which assistance had been drawn in the formulation of this IS.**

Standard (No. & Title)	Whether the standard has since been revised	Major changes	Action proposed
NA	NA	NA	NA

- ii) Status of standards referred in the IS**

Referred standards (No. & Title)	IS No. of these standards since revised	Changes that are of affecting the standard under review	Action proposed
IS/ISO 105-C10:2006 Textiles — Tests for colour fastness: Part C10 Colour fastness to washing with soap or soap and soda	(Same Version)	NA	NA

IS 293 : 1980 Code for seaworthy packaging of cotton cloth and yarn (first revision)	(Same Version)	NA	NA
IS 667 : 1981 Methods for identification of textile fibres with supplement (first revision)	(Same Version)	NA	NA
IS 1347 : 1972 Code for inland packaging of cotton cloth and yarn (first revision)	(Same Version)	NA	NA
IS 1383 : 1977 Methods for determination of scouring loss in grey and finished cotton textile materials (first revision)	(Same Version)	NA	NA
IS 1390 : 1983 Methods for determination of pH value of aqueous extracts of textile materials (first revision)	IS 1390 : 2022 ISO 3071 : 2020 Textiles Determination of pH of aqueous extract third revision of IS 1390	This standard is superseded by IS 1390 : 2019 Textiles – Determination of pH of aqueous extract (second revision)	Latest version of the IS 1390 : 2022 ISO 3071 : 2020 standard shall be referred and accordingly other changes will be made wherever required
IS 1954 : 1990 Determination of length and width of woven fabrics – Methods (second revision)	(Same Version)	NA	NA
IS 1963 : 1981 Methods for determination of threads per unit length in woven fabrics (second revision)	(Same Version)	NA	NA

IS 1964 : 2001 Textiles – Methods for determination of mass per unit length and mass per unit area of fabrics (second revision)	(Same Version)	NA	NA
IS 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)	(Same Version)	NA	NA
IS 2454 : 1985 Methods for determination of colour fastness of textile materials to artificial light (Xenon lamp) (first revision)	IS/ISO 105-B02 : 2014 Textiles – Tests for colour fastness – Part B02 Colour fastness to artificial light: Xenon arc fading lamp test	This standard is superseded by IS/ISO 105-B02 : 2014 Textiles – Tests for colour fastness – Part B02 Colour fastness to artificial light: Xenon arc fading lamp test	Latest version of the IS/ISO 105-B02 : 2014 standard shall be referred and accordingly other changes will be made wherever required
IS 2977 : 1989 Fabrics (other than wool) – Method for determination of dimensional changes on soaking in water (first revision)	(Same Version)	NA	NA
IS 3442 : 1980 Method for determination of crimp and count of yarn removed from fabrics (first revision)	IS 3442 : 2023 Textiles method for determination of crimp and linear density of yarn removed from fabric	NA	Latest version of the IS 3442 : 2023 standard shall be referred and accordingly other changes will be made wherever required

IS 4905 : 2015 Random sampling and randomization procedures (First Revision)	(Same Version)	NA	NA
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- iii) **Any other standards available related to the subject& scope of the standard being reviewed (International/regional/other national/association/consortia, etc or of new or revision of existing Indian Standard)**

Standard (No. & Title)	Provisions that could be relevant while reviewing the IS	Action proposed
NA	NA	NA

- iv) **Technical comments on the standard received, if any**

Source	Clause of IS	Comment	Action proposed
NA	NA	NA	NA

- v) **Information available on technical developments that have taken place (on product/processes/practices/use or application/testing/input materials, etc)**

Source	Development	Relevant clause of the IS under review that is likely to be impacted (Clause & IS No.)	Action proposed

- vi) **Issues arising out of changes in any related IS or due to formulation of new Indian Standard**

Related IS and its Title (revised or new)	Provision in the IS under review that would be impacted & the clause no. or addition of new clause/provision	Changes that may be necessary in the Standards under review	Action proposed
NA	NA	NA	NA

vii) Any consequential changes to be considered in other IS

Related IS to get impacted	Requirements to be impacted
NA	NA

1. Any other observation:

Standard is based on latest industrial practices and still valid & perfectly elaborated as per the requirements.

2. Recommendations:

Based on the above observations, the standard may be reaffirmed for a further period of 5 years. The committee shall decide.

IS 3770 : 2019

- 1. Sectional Committee No. & Title:** TXD 08, Handloom and Khadi Sectional Committee
- 2. IS No:** IS 3770 : 2019
- 3. Title:** Textiles – Dosuti, cotton khadi, bleached or dyed – Specification (second revision)
- 4. Date of review:** 30 October 2023
- 5. Review Analysis**

- i) **Status of standard(s), if any from which assistance had been drawn in the formulation of this IS.**

Standard (No. & Title)	Whether the standard has since been revised	Major changes	Action proposed
NA	NA	NA	NA

- ii) **Status of standards referred in the IS**

Referred standards (No. & Title)	IS No. of these standards since revised	Changes that are of affecting the standard under review	Action proposed
IS/ISO 105-C10 : 2006 Textiles — Tests for colour fastness: Part C10 Colour fastness to washing with soap or soap and soda	(Same Version)	NA	NA
IS 293 : 1980 Code for seaworthy packaging of cotton yarn and cloth (third revision)	(Same Version)	NA	NA
IS 667 : 1981 Methods for identification of textile fibres with supplement (first revision)	(Same Version)	NA	NA
IS 1347 : 1972 Code for inland packaging of cotton cloth and yarn (first revision)	(Same Version)	NA	NA

IS 1383 : 1977 Methods for determination of scouring loss in grey and finished cotton textile materials (first revision)	(Same Version)	NA	NA
IS 1390 : 1983 Methods for determination of pH value of aqueous extracts of textile materials (first revision)	IS 1390 : 2022 ISO 3071 : 2020 Textiles Determination of pH of aqueous extract third revision of IS 1390	This standard is supersedes by IS 1390 : 2019 Textiles – Determination of pH of aqueous extract (second revision)	Latest version of the IS 1390 : 2022 ISO 3071 : 2020 standard shall be referred and accordingly other changes will be made wherever required
IS 1954 : 1990 Determination of length and width of woven fabrics – Methods (second revision)	(Same Version)	NA	NA
IS 1963 : 1981 Methods for determination of threads per unit length in woven fabrics (second revision)	(Same Version)	NA	NA
IS 1964 : 2001 Textiles – Methods for determination of mass per unit length and mass per unit area of fabrics (second revision)	(Same Version)	NA	NA
IS 1969 (Part 1) : 2018 Textiles — Tensile properties of fabrics: Part 1 Determination of maximum force and elongation at maximum force	(Same Version)	NA	NA

using the strip method (fourth revision)			
IS 2454 : 1985 Methods for determination of colour fastness of textile materials to artificial light (Xenon lamp) (first revision)	IS/ISO 105-B02 : 2014 Textiles – Tests for colour fastness – Part B02 Colour fastness to artificial light: Xenon arc fading lamp test	This standard is superseded by IS/ISO 105-B02 : 2014 Textiles – Tests for colour fastness – Part B02 Colour fastness to artificial light: Xenon arc fading lamp test	Latest version of the IS/ISO 105-B02 : 2014 standard shall be referred and accordingly other changes will be made wherever required
IS 2977 : 1989 Fabrics (other than wool) – Method for determination of dimensional changes on soaking in water (first revision)	(Same Version)	NA	NA
IS 3442 : 1980 Method for determination of crimp and count of yarn removed from fabrics (first revision)	IS 3442 : 2023 Textiles method for determination of crimp and linear density of yarn removed from fabric	NA	Latest version of the IS 3442 : 2023 standard shall be referred and accordingly other changes will be made wherever required
IS 4905 : 2015 Random sampling and randomization procedures (First Revision)	(Same version)	NA	NA

iii) Any other standards available related to the subject & scope of the standard being reviewed (International/regional/other national/association/consortia, etc or of new or revision of existing Indian Standard)

Standard (No. & Title)	Provisions that could be relevant while reviewing the IS	Action proposed
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NA	NA	NA
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iv) Technical comments on the standard received, if any

Source	Clause of IS	Comment	Action proposed
NA	NA	NA	NA

v) Information available on technical developments that have taken place (on product/processes/practices/use or application/testing/input materials, etc)

Source	Development	Relevant clause of the IS under review that is likely to be impacted (Clause & IS No.)	Action proposed

vi) Issues arising out of changes in any related IS or due to formulation of new Indian Standard

Related IS and its Title (revised or new)	Provision in the IS under review that would be impacted & the clause no. or addition of new clause/provision	Changes that may be necessary in the Standards under review	Action proposed
NA	NA	NA	NA

vii) Any consequential changes to be considered in other IS

Related IS to get impacted	Requirements to be impacted
NA	NA

1. Any other observation:

Standard is based on latest industrial practices and still valid & perfectly elaborated as per the requirements.

2. Recommendations:

Based on the above observations, the standard may be reaffirmed for a further period of 5 years. The committee shall decide.

IS 3771 : 2019

1. Sectional Committee No. & Title: TXD 08, Handloom and Khadi Sectional Committee

2. IS No: IS 3771 : 2019

3. Title: Textiles – Long cloth, cotton khadi, bleached – Specification (second revision)

4. Date of review: 30 October 2023

5. Review Analysis

i) Status of standard(s), if any from which assistance had been drawn in the formulation of this IS.

Standard (No. & Title)	Whether the standard has since been revised	Major changes		Action proposed
NA	NA	NA		NA

ii) Status of standards referred in the IS

Referred standards (No. & Title)	IS No. of these standards since revised	Changes that are of affecting the standard under review	Action proposed
IS 293 : 1980 Code for seaworthy packaging of cotton yarn and cloth (third revision)	(Same Version)	NA	NA
IS 667 : 1981 Methods for identification of textile fibres with supplement (first revision)	(Same Version)	NA	NA
IS 1347 : 1972 Code for inland packaging of cotton cloth and yarn (first revision)	(Same Version)	NA	NA
IS 1383 : 1977 Methods for determination of scouring loss in grey and finished cotton textile materials (first revision)	(Same Version)	NA	NA
IS 1390 : 1983 Methods for determination of pH value of aqueous extracts of textile materials (first revision)	IS 1390 : 2022 ISO 3071 : 2020 Textiles Determination of pH of aqueous extract third revision of IS 1390	This standard is superseded by IS 1390 : 2019 Textiles – Determination of pH of aqueous extract (second revision)	Latest version of the IS 1390 : 2022 ISO 3071 : 2020 standard shall be referred and accordingly other changes will be made wherever required
IS 1954 : 1990 Determination of length and width of woven fabrics – Methods (second revision)	(Same Version)	NA	NA

IS 1963 : 1981 Methods for determination of threads per unit length in woven fabrics (second revision)	(Same Version)	NA	NA
IS 1964 : 2001 Textiles – Methods for determination of mass per unit length and mass per unit area of fabrics (second revision)	(Same Version)	NA	NA
IS 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)	(Same Version)	NA	NA
IS 2977 : 1989 Fabrics (other than wool) – Method for determination of dimensional changes on soaking in water (first revision)	(Same Version)	NA	NA
IS 3442 : 1980 Method for determination of crimp and count of yarn removed from fabrics (first revision)	IS 3442 : 2023 Textiles method for determination of crimp and linear density of yarn removed from fabric	NA	Latest version of the IS 3442 : 2023 standard shall be referred and accordingly other changes will be made wherever required

IS 4905 : 2015 Random sampling and randomization procedures (First Revision)	(Same version)	NA	NA
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iii) Any other standards available related to the subject & scope of the standard being reviewed (International/regional/other national/association/consortia, etc or of new or revision of existing Indian Standard)

Standard (No. & Title)	Provisions that could be relevant while reviewing the IS	Action proposed
NA	NA	NA

iv) Technical comments on the standard received, if any

Source	Clause of IS	Comment	Action proposed
NA	NA	NA	NA

v) Information available on technical developments that have taken place (on product/processes/practices/use or application/testing/input materials, etc)

Source	Development	Relevant clause of the IS under review that is likely to be impacted (Clause & IS No.)	Action proposed

vi) Issues arising out of changes in any related IS or due to formulation of new Indian Standard

Related IS and its Title (revised or new)	Provision in the IS under review that would be impacted & the clause no. or addition of new clause/provision	Changes that may be necessary in the Standards under review	Action proposed
NA	NA	NA	NA

vii) Any consequential changes to be considered in other IS

Related IS to get impacted	Requirements to be impacted
NA	NA

1. Any other observation:

Standard is based on latest industrial practices and still valid & perfectly elaborated as per the requirements.

2. Recommendations:

Based on the above observations, the standard may be reaffirmed for a further period of 5 years. The committee shall decide.

IS 3777 : 2019

- 1. Sectional Committee No. & Title:** TXD 08, Handloom and Khadi Sectional Committee
- 2. IS No:** 3777 : 2019
- 3. Title:** Textiles – Dusters, cotton khadi, bleached – Specification (*second revision*)
- 4. Date of review:** 30 October 2023
- 5. Review Analysis**

- i) **Status of standard(s), if any from which assistance had been drawn in the formulation of this IS.**

Standard (No. & Title)	Whether the standard has been revised since	Major changes	Action proposed
NA	NA	NA	NA

- ii) **Status of standards referred in the IS**

Referred standards (No. & Title)	IS No. of these standards since revised	Changes that are of affecting the standard under review	Action proposed
IS 667 : 1981 Methods for identification of textile fibres with supplement (<i>first revision</i>)	Same Version	N/A	N/A
IS 1347 : 1972 Specification for Inland packaging of cotton cloth and yarn (<i>first revision</i>)	Same Version	N/A	N/A
IS 1963 : 1981 Methods for determination of threads per unit length in woven fabrics (<i>second revision</i>)	Same Version	N/A	N/A
IS 1964 : 2001 Textiles — Methods for determination of mass per unit length and mass per	Same Version	N/A	N/A

area of fabrics (<i>second revision</i>)			
IS 1969 (Part 1) : 2018 Textiles — Tensile properties of fabrics: Part 1 Determination of maximum force and elongation at maximum force using the strip method (<i>fourth revision</i>)	Same Version	N/A	N/A
IS 3442 : 1980 Method for determination of crimp and count of yarn removed from fabrics (<i>first revision</i>)	IS 3442 : 2023 Textiles method for determination of crimp and linear density of yarn removed from fabric	This standard was originally published in 1966 and subsequently revised in 1980. The present revision has been made in the light of experience gained since its publication and to incorporate the following major changes: a) Requirement for the tension to be used to straighten the yarn/thread after removal from the fabric has been specified in Annex C; b) Amendment has been incorporated; c) Title of the standard has been modified;	Latest version of the Standard IS 3442 :2023 shall be referred and accordingly other changes will be made wherever required
IS 4905 : 2015 Random sampling and randomization procedures (<i>first revision</i>)	Same Version	N/A	N/A

- iii) **Any other standards available related to the subject & scope of the standard being reviewed (International/regional/other national/association/consortia, etc or of new or revision of existing Indian Standard)**

Standard (No. & Title)	Provisions that could be relevant while reviewing the IS	Action proposed
NA	NA	NA

- iv) **Technical comments on the standard received, if any**

Source	Clause of IS	Comment	Action proposed
NA	NA	NA	NA

- v) **Information available on technical developments that have taken place (on product/processes/practices/use or application/testing/input materials, etc)**

Source	Development	Relevant clause of the IS under review that is likely to be impacted (Clause & IS No.)	Action proposed

- vi) **Issues arising out of changes in any related IS or due to formulation of new Indian Standard**

Related IS and its Title (revised or new)	Provision in the IS under review that would be impacted & the clause no. or addition of new clause/provision	Changes that may be necessary in the Standards under review	Action proposed
NA	NA	NA	NA

vii) Any consequential changes to be considered in other IS

Related IS to get impacted	Requirements to be impacted
NA	NA

1. Any other observation:

Standard is based on latest industrial practices and still valid & perfectly elaborated as per the requirements.

2. Recommendations:

Based on the above observations, the standard may be reaffirmed for a further period of 5 years. The committee shall decide.

IS 3778 : 2019

- 1. Sectional Committee No. & Title:** TXD 08, Handloom and Khadi Sectional Committee
- 2. IS No:** 3778 : 2019
- 3. Title:** Textiles – Dungri cloth, cotton khadi, bleached – Specification (*second revision*)
- 4. Date of review:** 30 October 2023
- 5. Review Analysis**

- i) **Status of standard(s), if any from which assistance had been drawn in the formulation of this IS.**

Standard (No. & Title)	Whether the standard has been revised since	Major changes	Action proposed
NA	NA	NA	NA

- ii) **Status of standards referred in the IS**

Referred standards (No. & Title)	IS No. of these standards since revised	Changes that are of affecting the standard under review	Action proposed
IS 293 : 1980 Code for seaworthy packaging of cotton yarn and cloth (<i>third revision</i>)	Same Version	N/A	N/A
IS 667 : 1981 Methods for identification of textile fibres with supplement (<i>first revision</i>)	Same Version	N/A	N/A
IS 1347 : 1972 Specification for Inland packaging of cotton cloth and yarn (<i>first revision</i>)	Same Version	N/A	N/A
IS 1383 : 1977 Methods for determination of scouring loss in grey and finished cotton textile materials (<i>first revision</i>)	Same Version	N/A	N/A

IS 1390 : 1983 Methods for determination of pH value of aqueous extracts of textile materials (<i>first revision</i>)	IS 1390 : 2022 ISO 3071 : Textiles Determination of pH of aqueous extract third revision of IS 1390	This standard was originally published in 1961 and subsequently revised in 1983 and 2019. The second revision of this standard was identical with ISO 3071: 2005 ‘Textiles — Determination of pH of the aqueous extracts’. The third revision of this standard has been undertaken to align it with the latest version of ISO 3071 : 2020	Latest version of the Standard IS 1390 :2022 shall be referred and accordingly other changes will be made wherever required
IS 1954 : 1990 Determination of length and width of woven fabrics — Methods (<i>second revision</i>)	Same Version	N/A	N/A
IS 1963 : 1981 Methods for determination of threads per unit length in woven fabrics (<i>second revision</i>)	Same Version	N/A	N/A
1964 : 2001 Textiles — Methods for determination of mass per unit length and mass per area of fabrics (<i>second revision</i>)	Same Version	N/A	N/A
IS 1969 (Part 1) : 2018, Textiles — Tensile properties of fabrics: Part 1 Determination of maximum force and elongation at	Same Version	N/A	N/A

maximum force using the strip method (<i>fourth revision</i>)			
IS 2977 : 1989 Fabrics (other than wool) — Method for determination of dimensional changes on soaking in water (<i>first revision</i>)	Same Version	N/A	N/A
IS 3442 : 1980 Method for determination of crimp and count of yarn removed from fabrics (<i>first revision</i>)	IS 3442 : 2023 Textiles method for determination of crimp and linear density of yarn removed from fabric	This standard was originally published in 1966 and subsequently revised in 1980. The present revision has been made in the light of experience gained since its publication and to incorporate the following major changes: a) Requirement for the tension to be used to straighten the yarn/thread after removal from the fabric has been specified in Annex C; b) Amendment has been incorporated; c) Title of the standard has been modified;	Latest version of the Standard IS 3442 :2023 shall be referred and accordingly other changes will be made wherever required
IS 4905 : 2015 Random sampling and randomization procedures (<i>first revision</i>)	Same Version	N/A	N/A

- iii) Any other standards available related to the subject & scope of the standard being reviewed (International/regional/other national/association/consortia, etc or of new or revision of existing Indian Standard)

Standard (No. & Title)	Provisions that could be relevant while reviewing the IS	Action proposed
NA	NA	NA

- iv) Technical comments on the standard received, if any

Source	Clause of IS	Comment	Action proposed
NA	NA	NA	NA

- v) Information available on technical developments that have taken place (on product/processes/practices/use or application/testing/input materials, etc)

Source	Development	Relevant clause of the IS under review that is likely to be impacted (Clause & IS No.)	Action proposed

- vi) Issues arising out of changes in any related IS or due to formulation of new Indian Standard

Related IS and its Title (revised or new)	Provision in the IS under review that would be impacted & the clause no. or addition of new clause/provision	Changes that may be necessary in the Standards under review	Action proposed
NA	NA	NA	NA

vii) Any consequential changes to be considered in other IS

Related IS to get impacted	Requirements to be impacted
NA	NA

1. Any other observation:

Standard is based on latest industrial practices and still valid & perfectly elaborated as per the requirements.

2. Recommendations:

Based on the above observations, the standard may be reaffirmed for a further period of 5 years. The committee shall decide.

IS 3779 : 2019

1. Sectional Committee No. & Title: TXD 08, Handloom and Khadi Sectional Committee

2. IS No: 3779 : 2019

3. Title: Textiles – Sheeting cloth, cotton khadi, bleached – Specification (*second revision*)

4. Date of review: 30 October 2023

5. Review Analysis

i) Status of standard(s), if any from which assistance had been drawn in the formulation of this IS.

Standard (No. & Title)	Whether the standard has since been revised	Major changes	Action proposed
NA	NA	NA	NA

ii) **Status of standards referred in the IS**

Referred standards (No. & Title)	IS No. of these standards since revised	Changes that are of affecting the standard under review	Action proposed
IS 293 : 1980 Code for seaworthy packaging of cotton yarn and cloth (<i>third revision</i>)	Same Version	N/A	N/A
IS 667 : 1981 Methods for identification of textile fibres with supplement (<i>first revision</i>)	Same Version	N/A	N/A
IS 1347 : 1972 Specification for Inland packaging of cotton cloth and yarn (<i>first revision</i>)	Same Version	N/A	N/A
IS 1383 : 1977 Methods for determination of scouring loss in grey and finished cotton textile materials (<i>first revision</i>)	Same Version	N/A	N/A

IS 1390 : 1983 Methods for determination of pH value of aqueous extracts of textile materials (<i>first revision</i>)	IS 1390 : 2022 ISO 3071 : Textiles Determination of pH of aqueous extract third revision of IS 1390	This standard was originally published in 1961 and subsequently revised in 1983 and 2019. The second revision of this standard was identical with ISO 3071: 2005 ‘Textiles — Determination of pH of the aqueous extracts’. The third revision of this standard has been undertaken to align it with the latest version of ISO 3071 : 2020	Latest version of the Standard IS 1390 :2022 shall be referred and accordingly other changes will be made wherever required
IS 1954 : 1990 Determination of length and width of woven fabrics — Methods (<i>second revision</i>)	Same Version	N/A	N/A
IS 1963 : 1981 Methods for determination of threads per unit length in woven fabrics (<i>second revision</i>)	Same Version	N/A	N/A
IS 1964 : 2001 Textiles — Methods for determination of mass per unit length and mass per area of fabrics (<i>second revision</i>)	Same Version	N/A	N/A
IS 1969 (Part 1) : 2018 Textiles — Tensile properties of fabrics: Part 1 Determination of maximum force and elongation at	Same Version	N/A	N/A

maximum force using the strip method (<i>fourth revision</i>)			
IS 2977 : 1989 Fabrics (other than wool) — Method for determination of dimensional changes on soaking in water (<i>first revision</i>)	Same Version	N/A	N/A
IS 3442 : 1980 Method for determination of crimp and count of yarn removed from fabrics (<i>first revision</i>)	IS 3442 : 2023 Textiles method for determination of crimp and linear density of yarn removed from fabric	This standard was originally published in 1966 and subsequently revised in 1980. The present revision has been made in the light of experience gained since its publication and to incorporate the following major changes: a) Requirement for the tension to be used to straighten the yarn/thread after removal from the fabric has been specified in Annex C; b) Amendment has been incorporated; c) Title of the standard has been modified;	Latest version of the Standard IS 3442 :2023 shall be referred and accordingly other changes will be made wherever required
IS 4905 : 2015 Random sampling and randomization procedures (<i>first revision</i>)	Same Version	N/A	N/A

- iii) **Any other standards available related to the subject& scope of the standard being reviewed (International/regional/other national/association/consortia, etc or of new or revision of existing Indian Standard)**

Standard (No. & Title)	Provisions that could be relevant while reviewing the IS	Action proposed
NA	NA	NA

- iv) **Technical comments on the standard received, if any**

Source	Clause of IS	Comment	Action proposed
NA	NA	NA	NA

- v) **Information available on technical developments that have taken place (on product/processes/practices/use or application/testing/input materials, etc)**

Source	Development	Relevant clause of the IS under review that is likely to be impacted (Clause & IS No.)	Action proposed

- vi) **Issues arising out of changes in any related IS or due to formulation of new Indian Standard**

Related IS and its Title (revised or new)	Provision in the IS under review that would be impacted & the clause no. or addition of new clause/provision	Changes that may be necessary in the Standards under review	Action proposed
NA	NA	NA	NA

vii) Any consequential changes to be considered in other IS

Related IS to get impacted	Requirements to be impacted
NA	NA

1. Any other observation:

Standard is based on latest industrial practices and still valid & perfectly elaborated as per the requirements.

2. Recommendations:

Based on the above observations, the standard may be reaffirmed for a further period of 5 years. The committee shall decide.

IS 3781 : 2019

- 1. Sectional Committee No. & Title:** TXD 08, Handloom and Khadi Sectional Committee
- 2. IS No:** 3781 : 2019
- 3. Title:** Textiles – Honeycomb and huckaback towels, Cotton khadi, bleached or dyed – Specification (*second revision*)
- 4. Date of review:** 30 October 2023
- 5. Review Analysis**

- i) **Status of standard(s), if any from which assistance had been drawn in the formulation of this IS.**

Standard (No. & Title)	Whether the standard has since been revised	Major changes	Action proposed
NA	NA	NA	NA

- ii) **Status of standards referred in the IS**

Referred standards (No. & Title)	IS No. of these standards since revised	Changes that are of affecting the standard under review	Action proposed
ISO 105-C10 : 2006 Textiles — Tests for colour fastness: Part C10 Colour fastness to washing with soap or soap and soda	Same Version	N/A	N/A
IS 293 : 1980 Code for seaworthy packaging of cotton yarn and cloth (<i>third revision</i>)	Same Version	N/A	N/A
IS 667 : 1981 Methods for identification of textile fibres with supplement (<i>first revision</i>)	Same Version	N/A	N/A
IS 766 : 1988 Method for determination of colour fastness of textile materials	IS/ISO 105-X12 : 2016 ISO 105-X12 : 2016 Textiles – Tests for colour fastness Part X12 Colour fastness to	This standard is superseded by IS/ISO 105-X12 : 2016 ISO 105-X12 : 2016 Textiles – Tests for colour fastness	Latest version of the Standard IS shall be referred ISO 105-X12 : 2016, ISO-X12 : 2016 and accordingly other changes will be

to rubbing (<i>first revision</i>)	rubbing (first revision)	Part X12 Colour fastness to rubbing (first revision)	made wherever required
IS 1347 : 1972 Specification for Inland packaging of cotton cloth and yarn (<i>first revision</i>)	Same Version	N/A	N/A
IS 1383 : 1977 Methods for determination of scouring loss in grey and finished cotton textile materials (<i>first revision</i>)	Same Version	N/A	N/A
IS 1390 : 1983 Methods for determination of pH value of aqueous extracts of textile materials (<i>first revision</i>)	IS 1390 : 2022 ISO 3071 : Textiles Determination of pH of aqueous extract third revision of IS 1390	This standard was originally published in 1961 and subsequently revised in 1983 and 2019. The second revision of this standard was identical with ISO 3071: 2005 'Textiles — Determination of pH of the aqueous extracts'. The third revision of this standard has been undertaken to align it with the latest version of ISO 3071 : 2020	Latest version of the Standard IS 1390 :2022 shall be referred and accordingly other changes will be made wherever required
IS 1963 : 1981 Methods for determination of threads per unit length in woven fabrics (<i>second revision</i>)	Same Version	N/A	N/A
1964 : 2001 Textiles —	Same Version	N/A	N/A

Methods for determination of mass per unit length and mass per area of fabrics (<i>second revision</i>)			
IS 1969 (Part 1) : 2018 Textiles — Tensile properties of fabrics: Part 1 Determination of maximum force and elongation at maximum force using the strip method (<i>fourth revision</i>)	Same Version	N/A	N/A
IS 2454 : 1985 Methods for determination of colour fastness of textile materials to artificial light (xenon lamp) (<i>first revision</i>)	IS/ISO 105-B02 : 2014 Textiles – Tests for colour fastness – Part B02 Colour fastness to artificial light: Xenon arc fading lamp test	This standard is superseded by IS/ISO 105-B02 : 2014 Textiles – Tests for colour fastness – Part B02 Colour fastness to artificial light: Xenon arc fading lamp test	Latest version of the Standard IS/ISO 105-B02 : 2014 shall be referred and accordingly other changes will be made wherever required
IS 2977 : 1989 Fabrics (other than wool) — Method for determination of dimensional changes on soaking in water (<i>first revision</i>)	Same Version	N/A	N/A
IS 3442 : 1980 Method for determination of crimp and count of yarn removed from fabrics (<i>first revision</i>)	IS 3442 : 2023 Textiles method for determination of crimp and linear density of yarn removed from fabric	This standard was originally published in 1966 and subsequently revised in 1980. The present revision has been made in the light of experience gained since its publication and to incorporate the following	Latest version of the Standard IS 3442 :2023 shall be referred and accordingly other changes will be made wherever required

		major changes: a) Requirement for the tension to be used to straighten the yarn/thread after removal from the fabric has been specified in Annex C; b) Amendment has been incorporated; c) Title of the standard has been modified;	
IS 4905 : 2015 Random sampling and randomization procedures (<i>first revision</i>)	Same Version	N/A	N/A

- iii) **Any other standards available related to the subject & scope of the standard being reviewed (International/regional/other national/association/consortia, etc or of new or revision of existing Indian Standard)**

Standard (No. & Title)	Provisions that could be relevant while reviewing the IS	Action proposed
NA	NA	NA

- iv) **Technical comments on the standard received, if any**

Source	Clause of IS	Comment	Action proposed
NA	NA	NA	NA

- v) **Information available on technical developments that have taken place (on product/processes/practices/use or application/testing/input materials, etc)**

Source	Development	Relevant clause of the IS under review that is likely to be impacted (Clause & IS No.)	Action proposed

vi) Issues arising out of changes in any related IS or due to formulation of new Indian Standard

Related IS and its Title (revised or new)	Provision in the IS under review that would be impacted & the clause no. or addition of new clause/provision	Changes that may be necessary in the Standards under review	Action proposed
NA	NA	NA	NA

vii) Any consequential changes to be considered in other IS

Related IS to get impacted	Requirements to be impacted
NA	NA

1. Any other observation:

Standard is based on latest industrial practices and still valid & perfectly elaborated as per the requirements.

2. Recommendations:

Based on the above observations, the standard may be reaffirmed for a further period of 5 years. The committee shall decide.

IS 4106 : 2019

1. Sectional Committee No. & Title: TXD 08, Handloom and Khadi Sectional Committee

2. IS No: IS 4106 : 2019

3. Title: Textiles — Bunting Cloth, Cotton Khadi, Dyed — Specification

4. Date of review: 30 October 2023

5. Review Analysis

i) **Status of standard(s), if any from which assistance had been drawn in the formulation of this IS.**

Standard (No. & Title)	Whether the standard has since revised	Major changes	Action proposed
NA	NA	NA	NA

ii) **Status of standards referred in the IS**

Referred standards (No. & Title)	IS No. of these standards since revised	Changes that are of affecting the standard under review	Action proposed
IS 105-C10 : 2006 Textiles — Tests for colour fastness: Part C10 Colour fastness to washing with soap or soap and soda	Same Version	N/A	N/A

IS : 293-1980 Code for seaworthy packaging of cotton yarn and cloth (third revision).	Same Version	N/A	N/A
IS 667 : 1981 Methods for identification of textile fibres with supplement (first revision)	Same Version	N/A	N/A
IS 1347 : 1972 Specification for inland packaging of cotton cloth and yarn (first revision).	Same Version	N/A	N/A
IS 1383 : 1977 (Mild Method) Methods for determination of scouring loss in grey and finished cotton textile materials (first revision).	Same Version	N/A	N/A
IS 1390 : 1983 (Cold Method) Methods for determination of pH value of aqueous extracts of textile materials (first revision).	IS 1390 : 2022 ISO 3071 : Textiles Determination of pH of aqueous extract third revision of IS 1390	This standard was originally published in 1961 and subsequently revised in 1983 and 2019. The second revision of this standard was identical with ISO 3071 : 2005 'Textiles — Determination of pH of the aqueous extracts'. The third revision of this standard has been undertaken to align it with the latest version of ISO 3071 : 2020.	Latest version of the Standard IS 1390 :2022 shall be referred and accordingly other changes will be made wherever required

IS 1954 : 1990 Methods for determination of length and width of fabrics (second revision)	Same Version	N/A	N/A
IS 1963 : 1981 Methods for determination of threads per unit length in woven fabrics (second revision).	Same Version	N/A	N/A
IS 1964 : 2001 Textiles – Methods for determination of mass per unit length and mass per unit area of fabrics (second revision)	Same Version	N/A	N/A
IS 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)	Same Version	N/A	N/A
IS 2454 : 1985 Methods for determination of colour fastness of textile materials to artificial light (Xenon lamp) (first revision)	IS/ISO 105-B02 : 2014 Textiles – Tests for colour fastness – Part B02 Colour fastness to artificial light: Xenon arc fading lamp test	This is standard is superseded by IS/ISO 105-B02 : 2014 Textiles – Tests for colour fastness – Part B02 Colour fastness to artificial light: Xenon arc fading lamp test	Latest version of the Standard IS/ISO 105- B02 : 2014 shall be referred and accordingly other changes will be made wherever required

IS 2977 : 1989 Fabrics (other than wool) - Methods for determination of Dimensional changes of woven fabrics (other than wool) on soaking in water (first revision)	Same Version	N/A	N/A
IS 3442 : 1980 Method for determination of crimp and count of yarn removed from fabrics (first revision)	IS 3442 : 2023 Textiles method for determination of crimp and linear density of yarn removed from fabric	This is standard is superseded by IS 3442 : 2023 Textiles method for determination of crimp and linear density of yarn removed from fabric	Latest version of the Standard IS 3442 : 2023 shall be referred and accordingly other changes will be made wherever required
IS 4905 : 2015 Random sampling and randomization procedures (First Revision)	Same Version	N/A	N/A

iii) Any other standards available related to the subject & scope of the standard being reviewed (International/regional/other national/association/consortia, etc or of new or revision of existing Indian Standard)

Standard (No. & Title)	Provisions that could be relevant while reviewing the IS	Action proposed
NA	NA	NA

iv) Technical comments on the standard received, if any

Source	Clause of IS	Comment	Action proposed
NA	NA	NA	NA

- v) **Information available on technical developments that have taken place (on product/processes/practices/use or application/testing/input materials, etc)**

Source	Development	Relevant clause of the IS under review that is likely to be impacted (Clause & IS No.)	Action proposed

- vi) **Issues arising out of changes in any related IS or due to formulation of new Indian Standard**

Related IS and its Title (revised or new)	Provision in the IS under review that would be impacted & the clause no. or addition of new clause/provision	Changes that may be necessary in the Standards under review	Action proposed
NA	NA	NA	NA

- vii) **Any consequential changes to be considered in other IS**

Related IS to get impacted	Requirements to be impacted
NA	NA

1. Any other observation:

Standard is based on latest industrial practices and still valid & perfectly elaborated as per the requirements.

2. Recommendations:

Based on the above observations, the standard may be reaffirmed for a further period of 5 years. The committee shall decide.

ANNEX 5

(Item 5.1)

TERMS OF REFERENCE FOR THE R&D PROJECTS

1. Title of the Project: Revision of 'IS 12388 : 1988 Specification for handloom cotton voile'.

2. Background

a) Technical Committee: Handloom and Khadi Sectional Committee, TXD 08 under Textile Division Council.

b) IS 12388 : 1988 'Specification for handloom cotton voile'. Handloom cotton voile is a lightweight, breathable, and sheer fabric known for its soft and delicate texture. It's often used for making comfortable, flowy clothing, curtains, and other lightweight textiles.

c) 'IS 12388 Specification for handloom cotton voile'. The existing standard prescribes constructional particulars and other requirements for handloom cotton voile having minimum mass of 48 g/m² and 42 g/m². The existing standard specifies the constructional particulars like ends/dm, picks/dm, gsm and dimension of handloom cotton voile. The existing standard also includes other important performance requirements like dimensional change, scouring loss, colour fastness to light, and washing. In order to take holistic view on the subject and to revise an indigenous Indian Standard, a detailed study of already developed specification for handloom cotton voile is required to be conducted to incorporate additional varieties.

3. Scope

This standard specifies the requirements for two varieties of handloom cotton voile. The proposed research and development will provide additional varieties along with their respective requirements. The revision of IS 12388 will be beneficial for the handloom industries, as it will enhance awareness and earnings of handloom weavers.

The project aims to generate and collect technical data for constructional particulars like ends/dm, picks/dm, gsm and dimension of handloom cotton voile and important performance requirements like dimensional change, scouring loss, colour fastness to light, and washing.

4. Expected Deliverables

- a) To generate empirical data for the requirements of ends/dm, picks/dm, dimensions, scouring loss, dimensional change, colour fastness and breaking load etc. by conducting tests on handloom cotton voile.
- b) To appropriately incorporate the test methods for testing the above mentioned requirements.
- c) Any other important requirement for handloom cotton voile may also be incorporated in the draft standard if required.

5. Research Methodology

- a) To collect the available data for the requirements of handloom cotton voile through desktop study, books, magazines, national and international standards information available with manufactures, laboratories, academia or any other source. Identifying the stakeholders, including manufacturer, Laboratories, etc. for handloom cotton voile to understand the manufacturing process and collect data.
- b) To purchase/collect 10 samples of handloom cotton voile and carrying out tests like ends/dm, picks/dm, dimensions, scouring loss, dimensional change, colour fastness, and breaking load etc. and any other quality parameters by conducting tests on handloom cotton voile. These results are tabulated and examined to determine the final values to be incorporated in the standard.
- c) Visiting of handloom industries/testing labs to collect information, regarding raw materials, varieties, performance parameters, manufacturing and packaging practices, sampling and testing methods or any other important requirement of handloom cotton voile (if required).
- d) Visiting/Consulting or Taking feedback from the users/consumers/professionals regarding the issues faced related to quality of handloom cotton voile and including the specific requirement and characteristics in the draft standard.
- e) Develop and formulate the specification standard (as per IS 12) based on the collected data, ensuring that they align with national and international quality benchmarks, meet user expectation and industry norms.

6. Requirement for the CVs

- a) Qualification: Bachelor Degree in Engineering/ Technology; and
- b) Experience: 10 years of experience in the field of Handloom and allied sectors.

7. Timeline and Method of Progress Review

No. of Days (Timeline)	Status of work to be done
0 to 45	Collecting the references (books/magazines/ national and international standards) and studying these references to execute the project with appropriate knowledge on the subject and identifying the industries to understand the manufacturing and collection of samples.
45 to 90	Visiting the Handloom Industries and testing labs in identified organizations for collecting the samples and preparing test data.
90 to 135	Examining the results of samples tested.
135 to 180	Submission of final results of the project, Consolidation of data and Submission of preliminary draft Indian standard based on project.

8. Support BIS will Provide

BIS shall provide the previous versions of IS 12388 and all the relevant national/international standards required for carrying out study.

TERMS OF REFERENCE FOR THE R&D PROJECTS

1. Title of the Project: Revision of 'IS 3772 : 1994 Textiles – Mazri, cotton khadi, scoured – Specification'.

2. Background

a) Technical Committee: Handloom and Khadi Sectional Committee, TXD 08 under Textile Division Council.

b) IS 3772 : 1994 'Textiles – Mazri, cotton khadi, scoured – Specification'. Cotton khadi Mazri is a handspun and handwoven fabric that is often used to make traditional clothing, particularly in rural areas. It is known for its coarse and textured appearance, which gives it a natural and rustic feel.

c) 'IS 3772 Textiles – Mazri, cotton khadi, scoured – Specification'. The existing standard prescribes constructional particulars and other requirements for scoured cotton khadi Mazri having mass of 170 g/m². The existing standard specifies the constructional particulars like ends/dm, picks/dm, gsm and dimension of cotton khadi mazri. The existing standard also includes other important performance requirements like dimensional change, scouring loss, colour fastness to light, washing, and rubbing. In order to take holistic view on the subject and to revise an indigenous Indian Standard, a detailed study of already developed specification for cotton khadi mazri is required to be conducted to incorporate additional varieties.

3. Scope

This standard specifies the requirements for a single variety of scoured cotton khadi mazri. The proposed research and development will provide additional varieties along with their respective requirements. The revision of IS 3772 will be beneficial for the khadi industries, as it will enhance awareness and earnings of khadi spinners and weavers.

The project aims to generate and collect technical data for constructional particulars like ends/dm, picks/dm, gsm and dimension of scoured cotton khadi mazri and important performance requirements like dimensional change, scouring loss, colour fastness to light, washing, and rubbing.

4. Expected Deliverables

- d) To generate empirical data for the requirements of ends/dm, picks/dm, dimensions, scouring loss, dimensional change, colour fastness, pH value and breaking load etc. by conducting tests on Scoured Cotton Khadi Mazri.
- e) To appropriately incorporate the test methods for testing the above mentioned requirements.
- f) Any other important requirement for scoured cotton khadi mazri may also be incorporated in the draft standard if required.

5. Research Methodology

- f) To collect the available data for the requirements of scoured cotton khadi mazri through

desktop study, books, magazines, national and international standards information available with manufactures, laboratories, academia or any other source. Identifying the stakeholders, including manufacturer, Laboratories, etc. for scoured cotton khadi mazri to understand the manufacturing process and collect data.

- g) To purchase/collect 10 samples of scoured cotton khadi mazri and carrying out tests like ends/dm, picks/dm, dimensions, scouring loss, dimensional change, colour fastness, pH value, and breaking load etc. and any other quality parameters by conducting tests on Scoured Cotton Khadi Mazri. These results are tabulated and examined to determine the final values to be incorporated in the standard.
- h) Visiting of khadi industries/testing labs to collect information, regarding raw materials, varieties, performance parameters, manufacturing and packaging practices, sampling and testing methods or any other important requirement of scoured cotton khadi mazri (if required).
- i) Visiting/Consulting or Taking feedback from the users/consumers/professionals regarding the issues faced related to quality of scoured cotton khadi mazri and including the specific requirement and characteristics in the draft standard.
- j) Develop and formulate the specification standard (as per IS 12) based on the collected data, ensuring that they align with national and international quality benchmarks, meet user expectation and industry norms.

6. Requirement for the CVs

- a) Qualification: Bachelor Degree in Engineering/ Technology; and
- b) Experience: 10 years of experience in the field of Khadi and allied sectors.

7. Timeline and Method of Progress Review

No. of Days (Timeline)	Status of work to be done
0 to 45	Collecting the references (books/magazines/ national and international standards) and studying these references to execute the project with appropriate knowledge on the subject and identifying the industries to understand the manufacturing and collection of samples.
45 to 90	Visiting the Khadi Industries and testing labs in identified organizations for collecting the samples and preparing test data.
90 to 135	Examining the results of samples tested.
135 to 180	Submission of final results of the project, Consolidation of data and Submission of preliminary draft Indian standard based on project.

8. Support BIS will Provide

BIS shall provide the previous versions of IS 3772 and all the relevant national/international standards required for carrying out study.s

ANNEX 6

(Item 5.1)

GUIDELINES FOR RESEARCH & DEVELOPMENT PROJECTS FOR FORMULATION AND REVIEW OF STANDARDS

1 INTRODUCTION

Bureau of Indian Standards (BIS), as the National Standards Body of India is responsible for formulating Indian Standards for products, processes and services. In the pursuit of this endeavour, it has so far developed more than 22000 Indian Standards. Action Research and Research & Development Projects have always been part of the standardization process. However, there has been a growing realisation in the context of the increasing diversification, innovation and complexities in the manufacturing sector and evolution of services and also due to the fast pace of changes in the manufacturing and services landscapes, research & development projects have to be made an integral part of the standardization process. The idea is that in principle no standard should be developed without intensive and insightful research work, which is not confined only to the review of the existing literature and focus group discussions on the subject chosen for standardization, but also covers the detailed field level study of the existing processes and practices in product manufacturing and service delivery. This requires a large network of domain area experts to carry out the research & development work. The existing network encompasses only a small segment of experts, who are either associated with technical committees as members or belong to some R&D organizations. The Memorandum of Understanding with the premier educational institutions imparting technical and professional education opens the window to the opportunities to expand this network substantially by utilizing the intellectual capital that resides with the faculty and the research scholars in these institutions. This association is conceived not only as a way to promote research & development work necessary for standards formulation but also to enrich the research ecosystem in these educational institutions.

2 OBJECTIVES

Objectives of this Scheme are to:

2.1 support and commission research & development projects to generate knowledge, empirical data and insights that would help in formulating new standards and updating & upgrading the existing Indian standards;

2.2 expand the network of domain area experts to carryout research & development projects in the areas related to standardization and conformity assessment; and

2.3 enrich the research ecosystem in the educational institutions imparting technical and professional education.

3 RESEARCH & DEVELOPMENT PROJECTS

3.1 Research & development projects under these guidelines are described as follows:

A project aimed at comprehensive, in depth and incisive study of a product, process or service or all taken together in respect of a subject under standardization, encompassing literature review, analysis of the data from secondary sources, collection and analysis of data from primary sources and stakeholder consultations.

3.2 The duration of a project shall not exceed six months counted from the date of the award of the project to acceptance of the final report by the Sectional Committee concerned, provided that the Sectional Committee must not take more than one month to give its decision on the final report. Further provided that the time taken by the Sectional Committee for giving its decision shall not be counted. The Sectional Committee may extend the duration but for not more than 2 months in special circumstances, the reasons for which shall be recorded in the minutes of meeting of the Sectional Committee.

3.3 The upper limit for expenditure for a project shall be Rs 10 lakhs (including taxes) only.

3.4 BIS will publish a list of research & development projects along with Terms of Reference (ToR) on Standardization portal or any other suitable digital platform.

3.5 If any organization or an expert on behalf of an institute wants to propose a research & development project on any new and emerging area in which they have expertise, they can do so through the same platform for the consideration of the Sectional Committee.

4 TERMS OF REFERENCE (ToR)

4.1 The ToR of Research& development project shall be prepared by the Sectional Committee concerned, and shall contain:

- a) Title, background and objectives of the study;
- b) Expected research methodology (brief information, for example, survey, testing, industry visits, etc.);
- c) Scope of study;
- d) Outline of the tasks and final deliverables expected from the Proposers;
- e) Methods of review, schedule for submitting the 1st draft report and project completion report;
- f) Any support or inputs to be provided to the Proposer; and
- g) Maximum duration of project and timelines for submission of proposal.

4.2 While preparing the Terms of Reference (ToR) the sectional committee may consider the following points as a research & development project may include one or mix of the following:

- a) Secondary research based on internet or published information including authentic data sources;

- b) Survey based research (including industry visits) to ascertain prevailing market conditions and practices, standards in use, industry and consumer preferences, availability of infrastructure, technical capabilities, comparative trends, economic trends;
- c) Ascertaining compliance to existing and proposed standards through testing, review of past test reports, other validation and verification checks; and
- d) Basic and innovative research to establish normative criteria. Criteria may include performance, health, safety, environmental impact.

5 APPROVAL OF COMMISSIONING OF THE RESEARCH AND DEVELOPMENT PROJECTS

5.1 There shall be a Review Committee for approving the projects recommended by the Sectional Committee. The composition of Review Committee shall be as follows:

DDG (SCMD)	: Chairperson
DDG (Standardization) concerned	: Member
DDG (Certification)	: Member
DDG (Labs)	: Member

Officer in-charge for research works in SCMD : Member Secretary

5.2 The Head of Technical Department concerned and Member Secretary of the Sectional Committee shall apprise the review committee about the project and explain the rationale behind the proposed research & development project.

6 ELIGIBILITY CRITERIA

6.1 The following shall be eligible for carrying out research & development projects under the Scheme:

- a) Academic institutions & universities having MoU with BIS and faculties and research scholars thereof;
- b) Member(s) of Technical Committees of BIS.

6.2 Faculties and research scholars shall submit proposals through their institute. Members of technical committees belonging to any association/organization shall submit the proposals through their association/organization. Members of technical committees in personal capacity can submit their proposals directly to BIS, however if carrying out a research & development project requires collaboration with any institution/organization, concurrence of the same shall also be submitted.

7 PROCEDURE FOR APPLICATION

7.1 Submission of Proposal

7.1.1 Applications for undertaking research & development projects shall be submitted in the manner prescribed by the Bureau and within the prescribed timelines,

7.1.2 Proposer(s) shall submit their proposal in a “single stage - two envelope bid system” consisting of separately sealed “Technical and Financial proposals”. The Technical Proposal shall be submitted as per format prescribed in **Annex A** and the Financial Proposal shall be submitted in the format prescribed as per **Annex B**, clearly specifying expected expenditure against each element such as manpower, equipment (shall not include computer hardware and software), travelling, testing, consumables, stationery, overheads, etc.

7.1.3 There shall be maximum one proposal from one institute on a given subject.

7.1.4 No contractual obligation whatsoever shall arise until a formal agreement is signed and executed between the Bureau and the Proposer.

7.2 The proposals shall inter-alia consist of the following:

7.2.1 In respect of the research & development projects put up by the Bureau:

- a) Details of the Project team along with the organization/institution associated with;
- b) The CV of the Project leader and expert/expert(s) to be associated with the project and a letter from organization authorizing Project Leader and expert/expert(s) to undertake the research as proposed.
- c) A write up on the understanding of the scope and objectives of the project.
- d) Methodology (sampling size, if applicable) to be adopted for the proposed study with a clear road map and time plan for completion of the project;
- e) Stage wise timelines for completion of the project.

7.2.2 In respect of research & development projects proposed by any expert/organization:

- a) Details of the Project team along with the organization/institution associated with;
- b) The CV of the Project leader and expert/expert(s) to be associated with the projects and a letter from organization authorizing Project Leader and expert/expert(s) to undertake the study as proposed.
- c) Objective that will be achieved and scope of the project clearly highlighting the need of such study and what would be the final deliverable;
- d) Methodology (sampling size if applicable) to be adopted for the proposed study with a clear road map and time plan for completion of the project;
- e) Details of infrastructure facilities available for the project, in the institution and additional facilities required (if any) for carrying out research.
- f) Stage wise timelines for the completion of the project

7.3 The Head of the concerned institution while forwarding the application and nominating the project leader shall certify that:

- a) the core facilities (land, buildings, laboratory, manpower and other infrastructure etc.) are available and will be provided to the Project Leader to work on the proposed project, b) the organization will discharge all its obligations, particularly in respect of management of the financial assistance given, and
- c) no other funding is being received/sought for the project proposed to be sanctioned by BIS.

8 PROCEDURE FOR APPROVAL WITHIN BIS

8.1 There shall be a Research Evaluation Committee (REC) to evaluate the proposals received, the composition of which shall be as follows:

DDG (PRT)	: Chairperson
Head (CMD) concerned	: Member
Head (LPPD)	: Member
Head of the Technical Department concerned	: Member
Director Finance	: Member
Two Experts from the Sectional Committee concerned	: Members
Head (SCMD)	: Member Secretary

*The experts shall be nominated by the Sectional Committee and the nominated members shall give a declaration to the effect that there is no conflict of interest with respect to the project.

8.2 The evaluation and selection will be as per Quality and Cost Based Selection (QCBS) method (Rule 192, GFR 2017) which is explained in **Annex C**.

8.3 The criteria for evaluation of technical proposal shall be as under:

Sl No.	Criteria	Max. Marks	Score by REC
1	Profile of key individual/individuals to be associated with the research project	10	
2	Experience of the individual/organisation in conducting research projects in the relevant discipline	20	
3	Understanding of Scope, Objectives and deliverables	15	
4	Methodology	30	
5	Work plan/Execution strategy	15	
6	Chapterisation, contents and lay out of the proposed report	10	
TOTAL		100	

Note: REC may call for a presentation by the proposers if deemed necessary.

8.4 The minimum qualifying marks shall be 70. All the proposals with marks below 70 shall be considered rejected.

8.5 REC may refer back, advice changes for reconsideration or reject any proposal.

8.6 REC shall open the financial proposals (bids) within 7 days from completion of technical evaluation.

8.7 A final score sheet of all the proposers shall be made as detailed in **Annex C** and the proposer getting the highest combined score shall be selected for awarding the project.

8.8 The member secretary (REC) shall send the selected proposals to DG/DDG Standardization concerned, as per their delegated powers, for consideration and approval for sanction of the project.

8.9 After the approval of project, the member secretary (REC) shall inform the concerned technical department and the proposer regarding the decision.

8.10 After the sanction of fund is approved, the draft agreement (prepared in line with model agreement given at **Annex D**, to be modified on case-to-case basis) shall also be prepared by the Member Secretary (Sectional Committee), clearly highlighting the payment term. The Head (Technical Department) shall sign the agreement on behalf of BIS in all cases.

8.11 In case the proposer to whom the project is awarded declines to take up the project, the Research project shall be awarded to the proposer getting the next highest combined score among the qualified proposers.

9 SIGNING OF AGREEMENT AND ISSUING OF SANCTION LETTER

9.1 After receipt of duly signed agreement from the proposer and after the receipt of the approval of competent authority, a sanction letter shall be issued by the concerned Head (Technical Department) to the organization/individual member. The project would be considered to have commenced from the date the sanction letter is issued.

10 FUNDING

10.1 The mode of payment for Research & development projects shall be as follows:

- a) First instalment up to a maximum of 30 percent of the total approved project cost would be released after approval of the project.
- b) Second instalment to the extent of 50 percent of the approved estimated cost would be released on the submission of progress report along with the report on utilization of the 75 percent of the fund and acceptance of the same by the Sectional Committee.
- c) The balance amount shall be released after submission of the final project report along with utilization certificate for the fund released and its acceptance by the Sectional Committee.

10.2 Release of each instalment is subject to satisfactory progress, required stage - wise deliverables and submission of the Utilization Certificate (UC) as per Form GFR12-A of GFR 2017 along with the statement of expenditure (SoE) issued by the Competent Authority.

11 PROGRESS REPORT AND MONITORING OF PROJECT

11.1 The relevant Sectional Committees of BIS will monitor the progress of project to ensure that the project is progressing as per the planned arrangement. However, member secretary of the concerned Sectional Committee under overall coordination of HoD would be the controlling/link officer for Research & Development projects and would constantly monitor the progress of the project every 30-45 days. Any delay in implementation of project should be duly justified by the Project leader and shall be put up to Research Evaluation Committee (REC) for approval.

11.2 The Sectional Committee shall review and give its acceptance of the progress reports submitted, within 3 weeks.

12 SUBMISSION OF FINAL PROJECT REPORT (FPR)

12.1 The FPR must be detailed and should include information about:

- a) the original objective(s) of the project,
- b) how far these objective(s) have been achieved, and
- c) how the results will benefit the development of the national standard(s) and
- d) a copy of final working draft of the concerned standard(s) (wherever applicable)
- e) include clear inferences, recommendations regarding their use in the proposed standards,
- f) all references used, raw data of surveys, sampling, testing and experiments,
- g) undertaking that all the information presented is authentic.

12.2 FPR received in BIS would be put up to the concerned Sectional Committee, which will take necessary action for preparation/revision of standard appropriately. The Project leader shall assist in the disposal of comments received on the research project, draft standard and for the preparation of the finalized draft, as may be desired by the Sectional Committee.

12.3 The proposer shall submit the Project Completion Report (PCR), within one month of completion of project along with the Utilization Certificate of the fund released as per Form GFR 12-A of GFR 2017 and the statement of expenditure (issued by the Competent Authority -in case of Govt. organization / Chartered Accountant in case of private organization).

13 RESULTS OF RESEARCH & DEVELOPMENT

13.1 Project Leader(s) would be encouraged to publish the results of research & development. While doing so, acknowledgement to the effect that financial assistance was received from BIS should be made in the research paper(s) published. BIS should be acknowledged in similar type of other published work/press reports.

13.2 One re-print of each research paper(s) published as a result of the work done under the BIS funds shall be sent to BIS as and when published.

14 INTELLECTUAL PROPERTY RIGHTS

14.1 Ownership of any intellectual property, including but not limited to confidential information, know-how, patents, copyrights, design rights, rights relating to computer software, and any other industrial or intellectual property rights, developed solely by Proposer shall be vested with that Party.

14.2 Ownership of any intellectual property, including but not limited to confidential information, know-how, patents, copyrights, design rights, rights relating to computer software, and any other industrial or intellectual property rights, developed solely by the Bureau shall be vested with that Party.

14.3 The Intellectual Property arising out as an outcome of research project undertaken under these guidelines shall be vested with Bureau.

15 OPERATION OF FUNDS

15.1 The utilization certificate of the funds received in previous instalment (if any) to BIS should be annexed with the Statement of all equipment, books, etc purchased out of the funds certified by the Head of the organization. The name, description of the equipment, cost in rupees, date of purchase, and the name of the supplier to be given in the list. The main purpose/function of the equipment may also be mentioned against each item.

15.2 Any unspent balance lying with the organization should be refunded to BIS after the finalization of the draft immediately, by means of demand draft or online transfer.

15.3 The Head of the concerned standardization department of BIS shall ensure that the project leader submits the utilization certificate in the manner prescribed in Form GFR 12-A of GFR 2017.

15.4 Head of the Standardization department shall also ensure that the operation of funds is monitored strictly as specified in **Annex E**. Further the Project Leader is also fully aware and shall adhere to the obligations of his/her as given in this procedure.

16 OTHER REQUIREMENTS

16.1 Organizations receiving financial assistance for research & development projects from BIS would have to maintain separate accounts for each research project.

16.2 In the event of a Project Leader's absence from his normal place of duty for two months at a stretch, the Head of the organization would need to immediately nominate an Alternate Project Leader(s) to supervise the implementation of the project and such a name has to be approved in

advance by BIS. In any event, a Project Leader shall give prior notice to BIS of his intention to stay away from the project.

16.3 Items of equipment, etc should be purchased on the basis of the established rules and procedures of the entity/organization.

16.4 Stock register of all equipment, books, etc purchased out of the funds shall be maintained.

16.5 Any capital-intensive equipment/devices purchased using financial assistance from BIS for research & development projects shall be allowed to be retained by the proposer for their research activity etc.

16.6 The organization shall have to ensure that expenditure with respect to TA/DA are made only as per their own norms but under no circumstances the executive/business class air travel or stay in a five-star hotel is made. The overhead expenses should not be more than 20 percent of the cost of the project.

16.7 The Project Leader must ensure that the concerned organization's newsletter would carry information on the activities and accomplishments of the various projects funded by the BIS.

16 TERMINATION OF PROJECT:

The research & development project can be terminated in case of any of the following:

- a) the approval of research & development project may be treated as withdrawn, if the sanctioned research & development project does not commence within one month from the date of receipt of the sanction letter, unless otherwise authorized by BIS;
- b) A Proposer may request for the withdrawal of a research & development project even after commencement of the project. In such case the entire fund given till that date shall be refunded to the Bureau; and
- c) if the Proposer fails to submit Progress report/Completed Project report within the prescribed timelines.

The REC shall take decision on all cases of termination.

18 RESOLUTION OF DISPUTES

Dispute Resolution: In case of any dispute that cannot be resolved amicably, it shall be referred to Sole Arbitrator appointed by the Director General of the Bureau of Indian standards, whose decision shall be final and binding upon both the parties. The provisions of the Arbitration and Conciliation Act, 1996, as amended from time to time, shall be applicable.

ANNEX A

TECHNICAL PROPOSAL

1. Name of the Proposer and Organization	
2. Project title	

3. Project leader

a) Title: Prof/Dr/Mr/Ms b) Name:	Sex M/F
c) Full official address	
Mobile/Telephone Fax E-mail	
d) Designation	
e) Date of birth	
f) Academic qualifications along with year of completion	
g) Experience	

4. Other members of the research team (give name, address, experience and academic qualifications for each member)

1. Name	Designation: Address: Experience: Academic Qualifications:
1. Name	Designation: Address: Experience: Academic Qualifications:

5. Research support availed/being availed/applied for by the Project leader from different sources, including BIS, during the last 5 years:

Funding agency	Title of the project and reference number	Duration (from mm/yyyy to mm/yyyy)	Percentage of time devoted /being devoted/to be devoted, in man months	Amount in lakh Rs.

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6. Details of facilities available with the institute/organization w.r.t. the research & development project

Facilities	Relevance to project
1.	

7. Aims and significance of the project

(Include the current status of work in area, both in India and abroad, with appropriate reference list at the end; identify lacunae, define question to be investigated; list briefly specific objectives of investigation. ethical clearance be enclosed where necessary).

8. The CV of the Project leader and expert/expert(s) to be associated with the projects and a letter from organization authorizing Project leader and expert/expert(s) to undertake the study as proposed.

9. Objective that will be achieved and scope of the project clearly highlighting the need of such study and what would be the final deliverable.

10. Methodology (sampling size if applicable) to be adopted for the proposed study.

11. Road map (Stage wise timelines for the completion of the project) and time table for completion of the project

12. Plan of work, methods and techniques to be used.

13. List of awards and honours conferred on the Project leader with dates.

14. Deliverables

15. Declaration and attestation:

I certify that all the details declared here are correct and complete.	Date:
Signature of Project leader	

12. Certificate of the institution:

<p>This is to certify that</p> <ol style="list-style-type: none"> we have read the terms and conditions of the BIS Research & Development Guidelines necessary for the compliance of the same. the necessary institutional facilities are available and will be provided for the implementation of this research proposal being submitted to the BIS for funding. Full account of expenditure will be rendered by the institution.

Name of the head: of the institution

Signature with date:

Seal:

ANNEX B FINANCIAL PROPOSAL FORMAT

[To be submitted on letterhead wherever applicable]

To:

Bureau of Indian Standards

Manak Bhavan, 9 Bahadur Shah Zafar Marg

New Delhi – 110002, India

Sub: Financial Proposal for Research & development Project on (Title: _____) for Bureau of Indian Standards (Research guidelines document no. _____ dated: ___-___-2023).

Dear Sir,

We are pleased to submit our Financial Proposal for Research & Development Project on (Title: _____) for Bureau of Indian Standards as per the terms and conditions of the Research & Development guidelines document (Ref No.: _____ dated: ___-___-2023).

1. We hereby declare that our financial proposal is unconditional in all respects.

2. Our financial proposal is as follows:

3. Cost of the Project:

Sl no.	Budget items	Amount
1	Manpower cost	
2	Consumables [Chemicals, samples, testing glassware, stationery, books etc, information search (from databases)]	
3	Equipment	
4	Travel	
5	Any other/Overhead expenses	
	Total project cost	

*Please write NA in case any item is not applicable

- The prices should be quoted in Indian Rupees above by the proposer.
- The quoted price should be inclusive of all applicable taxes and charges.
- Fund shall be released after deducting TDS as per applicable provisions of GST and income tax.

- d) Justification of cost (for each item of equipment, consumables and travel. Quotation(s) for equipment should also be enclosed).

Date:

Place:

Yours faithfully,
(Signature of the Project leader)

(Name and Designation of the proposer)

Name and Signature of the head of the institution

(Rubber seal of the proposer/institution/organization, as applicable)

ANNEX C

Stage 1: Evaluation of Technical Proposal:

- a) The proposal will be evaluated against the criteria defined at clause 8 in these Guidelines. The proposer may be required to provide additional details as deemed necessary by the REC.
- b) Upon technical evaluation of each proposal, “Technical marks” out of 100 marks will be assigned to every proposal.
- c) The proposals with score 70 or more marks in technical evaluation, will qualify for the evaluation of the financial proposal.
- d) The proposer with the highest marks in technical proposal will be awarded 100 “Technical Score” and subsequently other proposers will also be awarded “Technical Score” relative to the highest technical marks for the final composite score calculation purpose e.g., if the highest technical marks is 90 then “Technical Score” is $(90/90) \times 100 = 100$, hence the proposer with highest technical marks will score 100 “Technical Score”. Similarly, another proposer who scored 80 marks, will get $(80/90) \times 100 = 88.88$ “Technical Score”. Following formula will be used for the “Technical Score” (TS) calculation:

$$\text{Technical Score (TS)} = \left[\frac{\text{Proposer's Technical Marks}}{\text{Highest Technical Marks}} \right] \times 100$$

- e) The details of technical evaluation parameters are provided at clause 9.

Stage-2 Evaluation of Financial Proposal

- a) The evaluation will be carried out if financial proposals are complete and computationally correct.
- b) Upon financial evaluation of each proposal, the lowest financial proposal will be awarded 100 “Financial score”. The “Financial Score” of other proposer(s) will be computed by measuring the financial proposal against the lowest financial proposal. Following formula will be used for calculating “Financial Score”:

$$\text{Financial Score (FS)} = \left[\frac{\text{Lowest Financial proposal}}{\text{Proposer's Financial Proposal}} \right] \times 100$$

Stage-3 Computation of Combined Score

The “Combines Score” is a weighted average of the Technical and Financial Scores. The ratio of Technical and Financial Scores is 70:30 respectively. The Combined Score will be derived using the following formula:

$$\text{Combined Score} = [(\text{TS} \times 0.70) + (\text{FS} \times 0.30)]$$

The responsive proposers(s) will be ranked in descending order according to the Combined Score, which is calculated based on the above formula. The highest-ranking proposer as per the Combined Score will be selected for award of Research Project.

ANNEX D

MODEL AGREEMENT

(To be modified on case-to-case basis)

This Deed of Agreement made this _____ day of _____ (Month & Year) between Bureau of Indian Standards having Head Office at Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi – 110 002 (hereinafter called 'BIS', which expression shall, wherever the context so admits, include its successors and assigns) on one part and (name of the organization/expert) (hereinafter called _____ which expression shall, wherever the context so admits, include their heirs, executors, administrators, legal representative and assigns) of the other part, witness as follows:

1. Whereas (name of the organization/expert) through (name of the Project Leader) has submitted a proposal to BIS pertaining to Research & development project titled _____ for consideration and BIS has accepted the proposal.
2. That duration of the Research & development project shall be ___ months with periodic and final reviews. The total cost of the project shall be Rs_____/ - (Rupees in words) for the complete project. No further expenditure shall be borne by BIS on any account of this project including escalation of time.
3. The fund would be utilised for the specific project/assignment as approved by BIS and shall be spent within the specified time. Any portion of the fund which is ultimately not required for expenditure for the approved purpose shall be duly surrendered to BIS.
4. (Name of the organization/expert) shall not entrust the implementation of the project/assignment approved by BIS for which fund has been received to any other institution/expert or to divert the fund received from BIS as assistance to any other institution/expert/proposer.
5. (Name of the organization/expert) indemnifies BIS from any legal and/or financial encumbrance arising out of any infringement of IPR/licensing of IPR/technology transfer/commercialization.
6. (Name of the organization/expert) shall maintain an audited record in the form of a register for permanent, semi-permanent assets acquired solely or mainly out of BIS fund. Once the Research & development project is completed satisfactorily, the organization taking up the Research project may retain the equipment/devices for their Research & development activities, etc. The equipment procured through BIS fund should bear a label "BIS Funded".
7. BIS shall release the funds for the project as follows:

- a) First instalment up to a maximum of 30 percent of the total approved project cost would be released after approval of the project.
 - b) Second instalment to the extent of 50 percent of the approved estimated cost would be released on the submission of progress report along with the report on utilization of the 75 percent of the fund and acceptance of the same by the Sectional Committee.
 - c) The balance amount shall be released after submission of the final project report along with utilization certificate for the fund released and its acceptance by the Sectional Committee.
8. The completion of the Research & development project shall remain the responsibility of (name of the organization/expert) even if the project leader is not available due to any reason whatsoever. After completion of the project, a Project Completion Report giving details (objective(s) achieved, raw data of surveys, sampling, testing and experiments) of shall be submitted by the Project leader the original objective(s) of the project,
9. (Name of the organization/expert) shall ensure the completion of the project under the guidance and supervision of any other faculty/researcher, if the nominated project leader would not be available due to any reason. Such a faculty member/researcher can only be nominated with the approval of BIS.
10. In case (name of the organization/expert) is unable to complete the project to the satisfaction of BIS in stipulated time or extended time and leads to termination of the research project, BIS shall be entitled to claim the refund of fund so sanctioned with interest @ 10 percent thereon from (name of the organization/expert).
11. The authority to extend the duration of the project shall rest with BIS.
12. BIS shall have the right to formulate monitoring methodology of the Research & development project.
13. Dispute Resolution: In case of any dispute that cannot be resolved amicably, it shall be referred to Sole Arbitrator appointed by the Director General of the Bureau of Indian standards, whose decision shall be final and binding upon both the parties. The provisions of the Arbitration and Conciliation Act, 1996, as amended from time to time, shall be applicable.
14. Undertaking given by project leader, if any, shall be part of the agreement.
15. (Name of the organization/expert) shall be responsible for discharge of all its obligations of the project through the nominated project leader or any other expert/expert(s) in case of necessity particularly in respect of management of financial assistance given to them. (Name of the organization/expert) shall refund any excess/unutilized amount of the fund to BIS.

16. Release of subsequent instalments is subject to satisfactory progress, required stage - wise deliverables and submission of the Utilization Certificate (UC) as per Form GFR12-A of GFR 2017 along with the statement of expenditure (SoE) issued by the Competent Authority.

17. (Name of the organization/expert) shall ensure that Project leader shall give presentation on the progress of project to BIS as and when directed by BIS for continuation of the project, and shall assist in the disposal of comments received related to the Research & development Project.

18. The project shall be deemed to have been commenced from the date of release of sanction letter.

19. (Name of the organization/expert) shall ensure that while publishing the results of research & development, acknowledgement to the effect that financial assistance so received from BIS be made in the research papers published/ other published work/ press reports.

20. Procedure for screening/evaluation, selecting, monitoring Research & development projects prescribed in “Guidelines for Research & Development Projects for Formulation and Review of Standards’ shall be part of the agreement.



ANNEX E

OPERATION OF FUNDS AND PROGRESS REPORT

1. Title of the Project:	Project number:
2. Name & Address of Project leader:	Date of Commencement: dd/mm/yyyy

3. Details of Equipment Purchased (if any):

Name of equipment	Cost	Supplier	Date of purchase/ placing order for each item of equipment

NOTE - The equipment fund once fixed cannot be enhanced. Project leaders are advised to give authenticated estimates of the cost of equipment. Equipment should invariably be purchased within 1 month from the date of receipt of the fund and/or sanction letter.

4. Fund received_____.

5. Expenditure made in Rupees: (Please provide the details)

Expenditure	Amount	Taxes (as applicable)	Total
Manpower cost			
Consumables			
Equipment			
Travel			
Others			
Grand Total			

6. Amount saved (if any) from the last instalment: Rs_____.

7. Date on which scheme will complete its normal tenure of months
_____.

8. Whether extension beyond normal tenure has been requested. Yes /No.

If yes, justification for extension and programme of work to be completed. Also mention as to why the work could not be completed as per the original plan.

{Extension beyond normal tenure should be requested at the Project Monitoring Session before end of tenure (as given in ToR)}.

9. Constraints (if any) faced in the progress of work and suggestions to overcome them.
10. Any deviation from original plan with its nature and cause.
11. List of publication giving full bibliographic details accrued from this project (copies of the paper (s) should be enclosed).
12. Summary of work done (200 words).
13. Proposed programme of work for the next month (1000 words).
14. Detailed Progress Report enlisting the objectives in beginning briefly (up to five pages maximum).

Signature of Project leader Date:

Note: No column should be left blank; write not applicable (NA), wherever applicable.

TEMPLATE FOR THE TERMS OF REFERENCE FOR THE R&D PROJECTS
(Refer to the Guidelines on R&D Projects issued vide note SCMD/R&D dated xx-09-23)

- 1. Title of the Project:** Mention the title of the project.
- 2. Background:**
 - a) Mention the Technical Committee and Division Council the project is related to;
 - b) Mention the standard / document no. for the standard under development or review to which the project is related to;
 - c) Briefly explain the rationale for the commissioning of the project.
- 3. Scope:** Mention the scope of the project.
- 4. Expected Deliverables:** Mention the outcome of the project.
- 5. Research Methodology:**

Mention the essential components of the methodology like mid-term review, focus group discussions, visits to the manufacturing units and/or laboratories, collection and testing of samples etc. with the details of the sample size for them as applicable.

1. Requirement for the CVs:

Mention the requirement for the CVs of the persons to be engaged for the project.

2. Timeline and Method of Progress Review:

Suggest the stage wise timelines including that for the submission of the first draft, final draft and the report and the mechanism for the review of the progress.

3. Support BIS will Provide:

Indicate the support BIS may provide in terms of the standards, other publications, information regarding manufacturers and labs etc.