SUBJECT: INVITING TECHNICAL INPUTS ON PARASAILING FABRICS FOR BIS STANDARD DEVELOPMENT

Dear ITTA Members,

Greetings from ITTA!!!

Please find enclosed the MOM of the 4th meeting of Sportech Applications Sectional Committee, TXD 37 of BIS.

1. We bring your kind attention to the Point no-5.1. in MOM, gist of which is given below --

   BIS has formed a Panel from the sub-committee members from ITTA, Kusumgar Corp & JCT. The Panel has to cover all the varieties of Parasailing fabric into one standard. ED-ITTA will be the convener of the panel & will coordinate the activity. Therefore, we request you to give your inputs on the following -

   i) Give your technical inputs on Parasailing fabrics - Specifications of fabric/ made-up, etc.
   ii) If any member is interested & can contribute to this area, Panel may co-opt them including user organizations on the panel. Please write to us.

2. New Indian Standards to be developed for Sportech products - Please email us your suggestions on both Product Specification & Test methods (for different applications) to be developed by BIS as per the industry needs.

Kindly email your comments/ views to ITTA Email ID - officeed@ittaindia.org before 4th January 2022.

Best Regards,

Ruchita Gupta
Assistant Manager (Technical)
Indian Technical Textile Association
314, 3rd Floor, MIDAS, SAHAR PLAZA, Andheri-Kurla Road,
From: Textiles BIS <txd@bis.gov.in>
Date: Fri, Dec 24, 2021 at 5:42 PM
Subject: Minutes for 4th Meeting of Technical Textiles for Sportech Applications Sectional Committee, TXD 37

भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
उपभोक्ता मामले, खाद्य एवं सार्वजनिक वितरण मंत्रालय, भारत सरकार
Ministry of Consumer Affairs, Food & Public Distribution, Govt. of India
मानक भवन, 9 बहादुर शाह ज़फर मार्ग, नई दिल्ली – 110 002
Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi – 110002

कार्यक्षेत्र
खेलकूड (स्पोर्टिक) अनुप्रयोगों के लिये तकनीकी वस्त्राददि विषय समिति, टी एक्स डी 37 की चौथी बैठक
टी एक्स डी 37 के अध्यक्ष एवं सभी सदस्य
महोदय,
खेलकूड (स्पोर्टिक) अनुप्रयोगों के लिये तकनीकी वस्त्राददि विषय समिति, टी एक्स डी 37 की चौथी बैठक का कार्यक्षेत्र संलग्न है जो कि विषय समिति के अध्यक्ष द्वारा विधिवत अनुमोदित है।
सम्मतियाँ भेजने की अंतिम तिथि – 31-12-2021
MINUTES

Technical Textiles for Sportech Applications Sectional Committee, TXD 37

Chairperson and All Members of TXD 37

Dear Sir(s),

Please find enclosed the Minutes of the 4th Meeting of Technical Textiles for Sportech Applications Sectional Committee, TXD 37, duly approved by the Chairperson, Sectional Committee.

Last date for comments: 31 December 2021.

Comments if any, confined to the accuracy of recording, may please be mailed to the undersigned preferably by the last date for comments. If no reply is received by this date, we may be permitted to presume your approval of the minutes as recorded.

Thanking you,

Encl: As above

Yours faithfully,

(Mayur Katiyar)
Scientist B
For BIS Use Only

BUREAU OF INDIAN STANDARDS

Draft MINUTES

Technical Textiles for Sportech Applications Sectional Committee, TXD 37

4th Meeting

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Venue</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 December 2021</td>
<td>1500 h</td>
<td>Through CISCO Web Ex</td>
</tr>
<tr>
<td>(Tuesday)</td>
<td></td>
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</tr>
</tbody>
</table>

ATTENDEES:

1. Dr (Smt) Mrinal Choudhari  
   (Chairperson)  
   Wool Research Association, Thane

2. Shri A Prasad  
   Archroma India Pvt. Ltd., Thane

3. Shri Amol Thite  
   BTRA, Mumbai

4. Smt Sumi Sebastian  
   CCRI, Kerala

5. Dr Vijay Ramakrishnan  
   Garware Technical Fibres Limited, Pune

6. Dr T Senthilkumar  
   ICAR- Central Institute for Research on Cotton Technology, Mumbai

7. Dr A Arputharaj  
   – do –

8. Shri Palash Paul  
   Indian Jute Industries’ Research Association, Kolkata

9. Dr. Anup Rakshit  
   ITTA, Mumbai

10. Shri Khushwinder Dhillon  
    JCT Pvt. Ltd, Phagwara

11. Dr M K Talukdar  
    Kusumgar Corporates Pvt Ltd, Mumbai

12. Shri Ravi Singh  
    SASMIRA, Mumbai

13. Dr Karthikeyan K  
    SGS, Chennai

14. Shri R. Chandran  
    Textile Committee EPQA Division, Mumbai

15. Shri Devvertis Ruhela  
    WRA, Thane

16. Dr. Suranjana Gangopadhyay  
    VJTI, Mumbai

BIS DIRECTORATE GENERAL:

17. Shri J.K. Gupta  
    Scientist E & Head, Textiles

18. Shri Mayur Katiyar  
    Scientist B & Member Secretary

19. Shri Sourabh Awasthi  
    Young Professional (Textiles)

Item 0 WELCOME & INTRODUCTORY REMARKS
0.1 Shri J K Gupta, Head (Textiles) welcomed the Chairperson and all other members and urged for the active participation and to provide precise inputs on the agenda items. He also requested the members to extensively use standardization portal for effective and time bound communication.

0.2 Dr (Smt) Mrinal Choudhari, Chairperson, TXD 37 welcomed the members and invitees present in the meeting and thanked them for their contribution in the National Standardization effort in the area of Sportech.

Item 1 CONFIRMATION OF THE MINUTES OF THE PREVIOUS MEETING

1.1 In view of no comments received, the Committee CONFIRMED the minutes of the 3rd meeting of the Committee held on 16 April 2021 as circulated vide BISDG letter no. TXD 37/A 2.03 dated 16 April 2021.

Item 2 SCOPE AND COMPOSITION OF TXD 37

2.1 The Committee reviewed the present scope and composition as given in Annex 1 of the agenda and decided as under:

2.2.1 The Committee decided to co-opt the following organizations on the committee.

a) JCT Pvt. Ltd. Phagwara will be represented by Shri Khuswinder Dhillon as principle member and Shri Arvinder Singh as alternate member.
b) Western India Football Federation.
c) Central Reserve Police Force.

Item 3 ISSUES ARISING OUT OF PREVIOUS MEETING OF TXD 37

3.1 The Committee NOTED the summary of actions taken on the various decisions of the 3rd meeting as given in Annex 2 of the agenda and decided as under:

For item 6.1 (a): The committee requested the representative of Garware Technical Fibres Limited, Pune to provide technical inputs for Sports Strings and Sports Ropes.

For item 6.1 (b): Member secretary informed the committee that for laminated tents IS 12989: 2016 “Camping tents (third revision)” and IS 10321: Part 1 to 3: 1982 “Specification for 50-kg tent” are already available on the subject. The committee decided to circulate these standards to the committee member for their scrutiny and to decide whether a new standard on laminated tents is required or not.
Item 4 DRAFT INDIAN STANDARDS FOR FINALIZATION

4.1 The committee scrutinized the following draft Indian Standards as given in Annex 3 to the agenda along with the comments received on DOC: TXD 37(16935) Textiles – Nylon fabrics for sleeping bags – Specification (first revision of IS 8991:1978) from M/s Kusumgar Corporates Ltd. as given in Annex 4 to the agenda. After detailed deliberations, the committee decided as under:


The committee decided that the above draft standard be held to have been finalized for publication as Indian standard after incorporating the following changes along with editorial changes, if any:

a) To incorporate test method and requirement for puncture resistance in consultation with Dr. M K Talukdar and Chairperson TXD 37.

b) To incorporate the requirement for water proofness at 50 cm water column height for 60 min appropriately in the finalized draft. The requirement for this test shall be ‘No percolation of water through the fabric or wetting of the outer surface’ and test method shall be IS 7016 (Part 7).


The committee decided that the above draft standard be held to have been finalized for publication as Indian standard after incorporating the following changes along with editorial changes, if any:

a) Scope of the standard shall be modified to cover the requirements for inner layer, outer layer and carry bag fabric.

b) Clause 3.1, sentence 1 – Substitute the following for the existing:
   “3.1 Continuous filament nylon yarn shall be used in the manufacture of the cloth.”

c) Clause 3.2, line 1 – Substitute ‘Plain with ripstop’ for ‘plain or ripstop’

d) Table 1 – Substitute the following tables for the existing:

<table>
<thead>
<tr>
<th>S No.</th>
<th>Characteristics</th>
<th>Requirement</th>
<th>Method of Test, Ref to</th>
</tr>
</thead>
</table>

"Table 1 Requirements of Nylon fabric for inner layer"
<table>
<thead>
<tr>
<th>i)</th>
<th>Mass in grams per square metre</th>
<th>50±5</th>
<th>IS 1964</th>
</tr>
</thead>
<tbody>
<tr>
<td>ii)</td>
<td>Tensile strength of the fabric, N, Min</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Warp</td>
<td>700</td>
<td>IS 1969 (Part 1)</td>
</tr>
<tr>
<td></td>
<td>b) Weft</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>iii)</td>
<td>Tear strength, N, Min</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Warp</td>
<td>80</td>
<td>IS 7016 Part 3 Method A1 (double tear)</td>
</tr>
<tr>
<td></td>
<td>b) Weft</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>iv)</td>
<td>Elongation at break, percent, Min</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Warp</td>
<td>40</td>
<td>IS 1969 (Part 1)</td>
</tr>
<tr>
<td></td>
<td>b) Weft</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>v)</td>
<td>Colour fastness to light (dyed fabrics only), change in colour</td>
<td>5 or better</td>
<td>IS/ISO 105-B02</td>
</tr>
<tr>
<td>vi)</td>
<td>Colour fastness to washing: Test C(3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1) Change in colour</td>
<td>4 or better</td>
<td>IS/ISO 105-C10</td>
</tr>
<tr>
<td></td>
<td>2) Staining of adjacent fabric</td>
<td>4 or better</td>
<td></td>
</tr>
<tr>
<td>vii)</td>
<td>Colour fastness to perspiration</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 or better</td>
<td>IS/ISO 105-E04</td>
<td></td>
</tr>
<tr>
<td>viii)</td>
<td>Breathability (water vapour resistance), m².Pa/W, Min</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>To be provided by JCT after getting test results from NITRA</td>
<td></td>
<td>IS 17376</td>
</tr>
<tr>
<td>ix)</td>
<td>Dimensional change due to relaxation, percent, Max</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Warp</td>
<td>2</td>
<td>IS 2977</td>
</tr>
<tr>
<td></td>
<td>b) Weft</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

**Table 2 Requirement of nylon fabric for outer layer**

<table>
<thead>
<tr>
<th>S No.</th>
<th>Characteristics</th>
<th>Requirement</th>
<th>Method of Test, Ref to</th>
</tr>
</thead>
<tbody>
<tr>
<td>i)</td>
<td>Mass in grams per square metre</td>
<td>65±5</td>
<td>IS 1964</td>
</tr>
<tr>
<td>ii)</td>
<td>Tensile strength of the fabric, N, Min</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Warp</td>
<td>800</td>
<td>IS 1969 (Part 1)</td>
</tr>
<tr>
<td></td>
<td>b) Weft</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>iii)</td>
<td>Tear strength, N, Min</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Warp</td>
<td>100</td>
<td>IS 7016 Part 3 Method A1 (double tear)</td>
</tr>
<tr>
<td></td>
<td>b) Weft</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>iv)</td>
<td>Elongation at break, percent, Min</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Warp</td>
<td>30</td>
<td>IS 1969 (Part 1)</td>
</tr>
<tr>
<td></td>
<td>b) Weft</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>v)</td>
<td>Water Repellence- Spray Rating Test Min</td>
<td>80</td>
<td>IS 390</td>
</tr>
<tr>
<td>vi)</td>
<td>Colour fastness to light (dyed fabrics only), change in colour</td>
<td>5 or better</td>
<td>IS/ISO 105-B02</td>
</tr>
</tbody>
</table>
vii) Colour fastness to washing: Test C(3)
   1) Change in colour
   2) Staining of adjacent fabric
   4 or better
   4 or better
   IS/ISO 105-C10

viii) Breathability (water vapour resistance), m².Pa/W, Min
     To be provided by JCT after getting test results from NITRA
     IS 17376

ix) Dimensional change, percent, Max
    a) Warp
    b) Weft
    2
    2
    IS 2977

x) Abrasion resistance after 20000 cycles
   No thread breakage
   IS 12673 (Parts 1 & 2)

xi) Nature of coating
    Polyurethane
    Annex B of IS 16726

xii) Separation of PU film
     On fraying threads in warp and weft directions up to 5 mm after cutting
     the fabric from any portion, there shall not be a continuous PU film
     on the areas from where the threads have been removed
     -

<table>
<thead>
<tr>
<th>Table 3 Requirements of nylon fabric for carry bag</th>
</tr>
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<tbody>
<tr>
<td>S No.</td>
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<tr>
<td>-------</td>
</tr>
<tr>
<td>i)</td>
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<td>ii)</td>
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<tr>
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<td></td>
</tr>
</tbody>
</table>
vi) Nature of coating  
| Polyurethane | Annex B of IS 16726 |

vii) Separation of PU film  
- On fraying threads in warp and weft directions up to 5 mm after cutting the fabric from any portion, there shall not be a continuous PU film on the areas from where the threads have been removed.

viii) Abrasion resistance after 20000 cycles  
- No thread breakage  
- IS 12673 (Part 1 & 2)

ix) Hydrostatic resistance (Water penetration Pressure head tester 30 cm water column for 60 min)  
- No penetration and no wetting on coated side  
- IS 7016 (Part 7)

e) BIS may carry out the editorial changes if required.

**Item 5 NEW SUBJECTS FOR STANDARDIZATIONS**

5.1 The committee scrutinized the technical inputs on Parasailing fabrics provided by Dr M K Talukdar representing M/s Kusumgar Corporates Pvt Ltd, Mumbai and decided to constitute a Panel to cover all the varieties of Parasailing fabric into one standard. The composition of the Panel so formed is as follows:

1. Dr. Anup Rakshit ITTA, Mumbai (Convener)
2. M K Talukdar Kusumgar Corporates Pvt Ltd, Mumbai
3. Shri Khushvinder Dhillon JCT Pvt. Ltd.
4. Member Secretary
5. Panel may co-opt other members including user organisations on the panel.

**Item 6 TECHNICAL WORK PROGRAMME OF THE COMMITTEE**

6.1 The Committee NOTED the list of published standards under TXD 37.

**Item 7 DATE AND PLACE OF NEXT MEETING**

7.1 The Committee DECIDED to hold the next meeting after all the actions arising out of the previous meeting and this meeting are completed in the first week of March. The date and place of the meeting would be finalized in consultation with the Chairperson in due course.
Item 8  ANY OTHER BUSINESS

8.1 The committee requested Garware Technical Fibres Limited, Pune to provide technical inputs for the revision of IS 3345: 1989 “Sports nets-Specification (first revision)” within a period of three months. Based on technical inputs so received the matter shall be taken up for discussion in the next meeting of TXD 37.

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