भारतीय मानक
Indian Standard

IS 1793 : 2023

ऊन से बने वस्त्र सामग्री को चिन्हित करने के लिए आवश्यकताएँ

(दूसरा पुनरीक्षण)

Requirements for Marking Textiles Materials Made of Wool

(Second Revision)

ICS 59.060.10; 59.060.20

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

June 2023 **Price Group 4**

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

FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Wool, Wool Products and Textile Floor Coverings Sectional Committee had been approved by the Textiles Division Council.

This standard was first published in 1961. The first revision was undertaken in 1973 in order to make terms simpler and clearer. In the first revision the methods of test for determining the contents of wool and other fibres of the material was also added.

The present revision has been made in the light of experience gained since last revision and to incorporate the following major changes:

a) Amendment issued has been incorporated in the standard;
b) Packaging clause have been modified;
c) BIS certification marking clause has been modified; and
d) References to Indian Standard given in Annex A has been updated.

The composition of the committee responsible for the formulation of this standard is listed in Annex B.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

REQUIREMENTS FOR MARKING TEXTILES MATERIALS MADE OF WOOL

(Second Revision)

1 SCOPE

1.1 This standard specifies the requirements for marking textile materials containing not less than 20 percent of wool fibre.

1.2 It also lays down the methods for determining the contents of wool and other fibres of the material.

2 REFERENCES

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

3 TERMINOLOGY

3.1 Wool Fibre — The fibres obtained from the fleece or coat of the sheep or lamb, Alpaca, Angora goat, Pashmina or Mohair, Angora rabbit, camel, Himalayan goat, Llama and Vicuna, which have not been reclaimed from yarn or from knitted, woven or felted product.

NOTE — The wool fibres previous to their present use as a textile raw material shall not have been spun into yarn, woven or knitted into fabric or felted. As such permitted fibres include fleece wool, skin wool, wool fibres from soft untwisted waste, such as loosely connected wool fibres obtained as a by-product during carding or combing, broken tops, nails, roving waste, roller waste, but not flocks recovered during dry or wet finishing processes.

4 MARKING

4.1 Textile materials should be marked as given below on the basis of content of wool fibres:

a) *All Wool* — A textile material shall be marked 'ALL WOOL' if the material comprises of wool fibres only subject to the tolerances given below:

   1) Manufacturing tolerance up to 3 percent of inadvertent impurities; and

   2) An allowance up to 5 percent of material other than wool fibres used to provide a decorative or ornamentation effect.

b) *Blended Wool* — The textile material shall be marked 'BLENDED WOOL' if it contains not less than 50 percent of wool fibres. However, a manufacturing tolerance up to 3 percent on wool contents shall be permitted.

c) *Part Wool* — The textile material shall be marked 'PART WOOL' if it contains not less than 20 percent wool fibres. However, a manufacturing tolerance up to 3 percent on wool contents shall be permitted.

NOTES

1 All reference to the percentage contents mean percentages by mass calculated from the mass of materials when in standard condition, namely, their oven dry mass plus the appropriate regain.

2 In all cases the more detailed description of the contents of the material shall be given by indicating the percentages of the wool and other fibres in descending order used in the manufacture of the textile material. However, such a description should not be misleading.

5 METHODS OF TEST

5.1 For Textile Materials Marked 'ALL WOOL'

5.1.1 Take about 10 g to 15 g of the material and extract it in a Soxhlet apparatus with light petroleum hydrocarbon solvent (*see* IS 1745) for one hour at a minimum rate of 6 cycles per hour. Allow the light petroleum hydrocarbon solvent (*see* IS 1745) to evaporate and then extract in a Soxhlet apparatus with water for two hours at a minimum rate of 6 cycles per hour.

5.1.2 Take a representative sample weighing about 3 g from the pre-treated sample and place it in a suitable container. Place the specimen in the drying oven maintained at a temperature of (105 ± 3) °C and dry the sample to a constant mass. The mass shall be taken as constant when the difference between the two successive weighings made at intervals of 20 minutes is less than 0.05 percent.

5.1.3 Determine the mass of the sample without removing it from the oven. In case the drying oven is not provided with the weighing balance, remove

the sample, worn the oven and transfer it to a weighing container of known mass provided with a light lid. The transference of the sample should be done in as less a time as possible. Cool the sample and the container in a desiccator to room temperature before weighing. Weigh the container and then find the mast (M_1) of the sample to an accuracy of 10 mg.

5.1.4 Examine the sample visually. If this reveals the presence of decorative yarns or fibres of non-wool composition in the sample, carefully dissect these fibres or yarns out and dry them to constant mass at (105 ± 3) °C. Determine the mast to an accuracy of 10 mg (M_2).

5.1.5 Transfer the remaining sample in a beaker together with at least 100 times its mass of 5 percent solution of sodium or potassium hydroxide and boil slowly until the wool fibres become gelatinous and dissolve. After a period of 10 minutes of boiling, filter through a Gooch crucible and wash the residue first with warm water, then with 3 percent solution of glacial acetic acid and finally with hot water. Dry the residue at (105 ± 3) °C.

5.1.6 Examine carefully the residue and the pores of the crucible for non-fibrous matter, for example, burrs, seeds, finishing materials, dyestuff residues, as well as for incompletely dissolved wool. If any such contaminants present, it shall be dissolved or otherwise removed. For example, undissolved wool protein shall be removed by treatment with fresh boiling 5 percent sodium hydroxide or potassium hydroxide; and burrs and seeds shall be lifted out with forceps. Rinse and dry the residue to constant mass at (105 ± 3) °C . Determine the mass of the residue to an accuracy of 10 mg (M_2).

5.1.7 Determine the percentages of non-wool decorative fibres or yarns and non-wool fibres present as inadvertent impurities by the following formulae:

a) Percentage of non-wool decorative fibres

$$= \frac{M_2(100+x)\times 100}{M_2(100+x)+(M_1+M_2)(100+y)}$$

where

x = percentage moisture regain for non-wool decorative fibres, and

y = percentage moisture regain for wool.

b) Percentage of non-wool fibres present as inadvertent impurities

$$= \frac{M_2\times 100}{M_1}$$

5.1.8 Similarly, determine the percentages in the remaining samples and calculate the average.

5.2 For Textile Materials Marked 'BLENDED WOOL' or 'PART WOOL'

The methods specified in IS 2006, IS 6503, IS 6504 and IS 6570 shall be used for determining the percentage content of wool and other fibres in the textile materials.

6 MARKING

6.1 The material made of wool shall be marked with the following information:

a) Product description;
b) Blend composition and whether all wool, blended wool or part wool;
c) Batch No., Lot No. etc for traceability;
d) Manufacturer’s name, initials or trade-mark;
e) Net weight; and
f) Any other information as required under Law.

6.2 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act*, 2016 and the Rules and Regulations framed thereunder, and the product(s) may be marked with the Standard Mark.

7 SAMPLING AND CRITERIA FOR CONFORMITY

7.1 It shall be as specified in the relevant product specification or as agreed to between the buyer and the seller.

ANNEX A
(*Clause* 2)

LIST OF REFERRED STANDARDS

IS No.	*Title*
IS 1745 : 2018	Petroleum hydrocarbon solvents — Specification (*third revision*)
IS 2006 : 1988	Method for quantitative chemical analysis of binary mixtures of protein fibre with certain other non-protein fibres (*second revision*)
IS 6503 : 1988	Methods for quantitative chemical analysis of ternary mixtures of protein fibres, nylon 6 or nylon 6.6 and certain other fibres (*first revision*)
IS 6504 : 1979	Method for quantitative chemical analysis of ternary mixtures of viscose rayon, cotton and protein fibres (*first revision*)
IS 6570 : 1972	Method for quantitative chemical analysis of binary mixtures of jute and animal fibres

ANNEX B
(*Foreword*)

COMMITTEE COMPOSITION

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

Organization	*Representative(s)*
ICAR - Central Sheep & Wool Research Institute, Avikanagar	DR D. B. SHAKYAWAR **(*Chairperson*)**
Agnext Technologies Pvt Ltd, Mohali	SHRI TARANJEET SINGH BHAMARA SHRI SALIL LAKHANPAL (*Alternate*)
Ahujasons Shawlwale Pvt Ltd, New Delhi	SHRI PUNEET AHUJA
All India Carpet Manufacturers' Association, Bhadohi	SHRI RAVI PATODIA SHRI SURENDA K. BARANWAL (*Alternate*)
Art Weavers Pvt Ltd, Varanasi	SHRI HUSAIN JAFAR HUSAINI
Bikaner Woolen Mills Pvt Ltd, Bikaner	SHRI SHREYANSH BOTHRA
Carpet Export Promotion Council, New Delhi	SHRI SANJAY KUMAR SHRI SUBODH KUMAR GUPTA (*Alternate*)
Central Silk Board, Bangalore	DR S. V. NAIK DR PRAKASH N. BHATT (*Alternate*)
Central Wool Development Board, Jodhpur	SHRI ANURAG PUROHIT SHRI RAMESH KUMAR BUNDELA (*Alternate*)
Crafts Development Institute, Srinagar	DIRECTOR DR HINA QUAZI (*Alternate*)
Directorate of Animal Husbandry, Jaipur	DR J. S. SEHGAL
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ICAR - Central Sheep & Wool Research Institute, Avikanagar	DR AJAY KUMAR DR VINOD KADAM (*Alternate*)
Indian Institute of Carpet Technology, Bhadohi	DR BETTY DASGUPTA DR R. K. MALIK (*Alternate*)
Indian Institute of Carpet Technology, Srinagar	DR ZUBAIR AHMAD
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Khadi & Village Industries Commission, Mumbai	SHRI S. K. SINHA SHRI S. P. GUPTA (*Alternate*)
Looms of Ladakh, Leh	MS REGZEN YANGDOL

Organization	*Representative(s)*
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Office of the Development Commissioner for (Handicraft), New Delhi	MS POOJA VENUGOPAL SHRI SANDEEP KUMAR PATEL (*Alternate*)
Office of the Textile Commissioner, Mumbai	SHRI SOURABH KULKARNI SHRI PRANAV PARASHAR (*Alternate*)
Raymonds Limited, Thane	DR G. S. SINGH SHRI RAJIV HICHKAD (*Alternate*)
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Welspun India, Hyderabad	SHRI SRINATH VANAPARTI
Wool & Woolens Export Promotion Council, New Delhi	SHRI MAHESH N. SANIL SHRI ASHOK KUMAR THAKUR (*Alternate*)
Wool Research Association, Thane	DR SHISHIR TYAGI SHRI MAYUR BASUK (*Alternate*)
BIS Directorate General	SHRI J. K. GUPTA, SCIENTIST 'E'/DIRECTOR AND HEAD (TEXTILES) [REPRESENTING DIRECTOR GENERAL (*Ex-officio*)]

Member Secretary
SHRI HIMANSHU SHUKLA
SCIENTIST 'B'/ASSISTANT DIRECTOR
(TEXTILES), BIS

Bureau of Indian Standards

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BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002
Telephones: 2323 0131, 2323 3375, 2323 9402 *Website*: www.bis.gov.in

Regional Offices:		*Telephones*
Central	: 601/A, Konnectus Tower -1, 6th Floor, DMRC Building, Bhavbhuti Marg, New Delhi 110002	2323 7617
Eastern	: 8th Floor, Plot No 7/7 & 7/8, CP Block, Sector V, Salt Lake, Kolkata, West Bengal 700091	2367 0012 2320 9474
Northern	: Plot No. 4-A, Sector 27-B, Madhya Marg, Chandigarh 160019	265 9930
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Western	: Plot No. E-9, Road No.-8, MIDC, Andheri (East), Mumbai 400093	2821 8093

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