BHUTAN STANDARD

Textiles – Requirements for marking textile materials made of silk - Specifications

ICS 59.060.10;61.020

June, 2020

Price Group A

NATIONAL FOREWORD

This Bhutan Standard which is identical with IS 15824 Textiles – Requirements for marking textile materials made of silk - Specifications issued by the Indian Standards Bureau (IS) was adopted by Bhutan Standards Bureau by Textile Technical committee (TC-06) and approved by the Bhutan Standards Bureau Board (BSB Board) on June, 2020.

The text of the IS Standard has been approved as suitable for publication as Bhutan Standard without deviation. Certain conventions are however, not identical to those used in Bhutan Standard.

Attention is particularly drawn to the following:

a) Where the words “IS Standard” appear referring to this standard, they should be read as “Bhutan Standard”.

b) Wherever page numbers are quoted, they are “IS (IS Standard)” page numbers.

IS 15824 : 2008
(Reaffirmed 2013)
(Reaffirmed 2019)

भारतीय मानक

वस्त्रादि — रेशम से बने वस्त्रादि उत्पादों के लिए मुहरांकन की अपेक्षाएँ — विशिष्टि

Indian Standard

TEXTILES — REQUIREMENTS FOR MARKING TEXTILE MATERIALS MADE OF SILK — SPECIFICATION

ICS 59.060.10; 61.020

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

September 2008

Price Group 2

Silk and Silk Products Sectional Committee, TXD 28

FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Silk and Silk Products Sectional Committee had been approved by the Textile Division Council.

Marking and labelling of 'ALL SILK', 'BLENDED SILK' and 'PART SILK' materials is important from consumer point of view as many imitating or artificial textile materials are being sold as silk materials in the market in view of the fact that pure silk materials are costly and have better aesthetic and comfort qualities in addition to durability. Formulation of standard on marking and labelling requirements of silk materials, therefore, needs no emphasis.

The composition of the Committee responsible for the formulation of this standard is given in Annex A.

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 : 1960 'Rules for rounding off numerical values (*revised*)'. 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

TEXTILES — REQUIREMENTS FOR MARKING TEXTILE MATERIALS MADE OF SILK — SPECIFICATION

1 SCOPE

1.1 This standard specifies marking and labelling requirements including care labelling of pure, blended and part silk materials containing not less than 20 percent silk fibres.

1.2 It also lays down the methods for determining the contents of silk and other fibres in the silk products.

2 REFERENCES

The following standards contain provisions which through reference in this text constitute provisions of this standard. At the time of publications, 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 indicated below.

IS No.	*Title*
667 : 1981	Methods for identification of textile fibres (*first revision*)
1418 : 1999	Assaying of gold in gold bullion, gold alloys and gold jewellery/ artefacts–Cupellation (Fire assay) method (*second revision*)
1745 : 1978	Specification for petroleum hydrocarbon solvent (*second revision*)
14452 : 1997	Textiles — Care labelling code using symbols

3 TERMINOLOGY

For the purpose of this standard, the following definition shall apply.

3.1 Silk – A protein substance which is secreted in the fluid state by silk worm (Caterpillar stage of several silk moths) and which on exposure to air hardens in the form of a filament. It is composed mainly of fibroin and partly of sericin and other substances. It is available in the market in various varieties such as Mulberry Silk, ENDI, Muga Silk and Tasar (Tussah) Silk as defined below:

a) *ENDI (Silk)* — Silk of white or brick red colour obtained from a species of domesticated lepidopteran insect (*Attacus Ricini*) belonging to the family *Saturniidae*. It feeds on castor leaves.

b) *Muga Silk* — Silk of golden yellow colour obtained from partly domesticated moth *Antherea Assamonsis* which feeds on the leaves of *Som (Machilus Bombycina)* and *Soalu (Litsaea Polyantha)*.

c) *Mulberry Silk* — Silk mainly of yellow, white or greenish yellow colour obtained from domesticated silkworm *Bombyx Mori* belonging to the family *Bombycidae* which feed on mulberry leaves.

d) *Tasar (Tussah) Silk* — Silk of natural copperish colour obtained from a species of wild lepidopteran insect (*Antheraea Mylitta*) belonging to the *Assamonsis* group. It feeds on the leaves of a variety of forest trees such as *Asan (Terminalia Tomentosa), Arjuna (Terminalia Arjuna), Ber (Zizyphus Jujuba), Sal (Shorea Robusta) and Himalayan Oak (Quercus Serratac)*, etc.

e) *Pure Zari* — A yarn having a silk core, wrapped with silver wire and may be electroplated with gold. The silk core is a two ply 16/18 denier soft twisted yarn dyed in a red or yellow colour.

4 REQUIREMENTS

4.1 Requirements for Pure Silk and Blended Silk

4.1.1 Textile materials containing silk shall be marked as given below on the basis of content of silk in base/ground fabric only:

a) *Pure Silk* — A textile material shall be marked 'Pure Silk' if the material comprises of silk only subject to manufacturing tolerance up to 5 percent of foreign matter including metallic and weighting materials.

b) *Blended Silk* — The textile material shall be marked 'Blended Silk' if it contains not less than 50 percent of silk fibres. However, a tolerance of ±3 percent shall be permitted

on the declared silk content in the textile material.

c) *Part Silk* — The textile material shall be marked 'Part Silk' if it contains not less than 20 percent of silk. However, a tolerance of ±3 percent shall be permitted on the declared silk content in the textile material.

NOTES

1 All reference to 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 or the contents of the material shall be given by indicating the percentages of silk and other fibers in descending order used in the manufacture of textile material. However, such a description should not be misleading.

4.2 Requirements for Pure Zari Silk

4.2.1 The requirements already covered in the standard apply to basic silk fabrics only. However, for pure zari used in silk materials as ornamentation in extra warp and/or extra weft, the percentages of pure silver shall not be less than 50 percent by mass in the zari materials when determined by the assay method as specified in IS 1418. In case the silver is coated with gold, the gold content shall not be less than 0.5 percent of zari material.

4.3 Requirements for Care Labelling

4.3.1 The silk textile material shall also comply with the indication of appropriate care labelling symbols depending upon its declared end use conforming to the requirements of IS 14452 on a silk cloth label.

5 DETERMINATION OF SILK CONTENT OF TEXTILE MATERIAL

5.1 Textile Materials Containing Non-protein Fibres

5.1.1 Identify the presence of protein fibres other than silk in the textile material by the preliminary and staining tests as specified in IS 667. If protein fibres are not present then follow the procedure specified in **5.1.1.1** to **5.1.1.7**

5.1.1.1 Take about 10 to 15 g or the material and extract it in a Soxhlet apparatus with light petroleum hydrocarbon solvent (*see* IS 1745) for 1h 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.

5.1.1.2 Take a representative sample weighing about 5 g from the pretreated sample and place it in a suitable container. Place the container in the drying oven maintained at a temperature of 105 ± 3°C and dry the specimen to a constant mass. The mass shall be taken as constant when the difference between the two successive weighing made at intervals of 20 min is less than 0.05 percent.

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

5.1.1.4 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 silk fibers are completely dissolved. After a period of 10 min 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.

5.1.1.5 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 matter incompletely dissolved. If any such contaminant is present, it shall be dissolved or otherwise removed. For example, un-dissolved silk protein shall be removed by treatment with fresh boiling 5 percent sodium hydroxide or potassium hydroxide; and bum 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).

5.1.1.6 Determine the percentages of non-silk fibrous matter and other foreign matter including metallic and weighting material present by the following formulae:

$$\text{Percentage of non-silk fibrous matter and other foreign matter present} = \frac{M_2 \times 100}{M_1}$$

5.1.1.7 Similarly, determine the percentages in the remaining specimens and calculate the average.

5.1.1.8 From the value obtained in **5.1.1.7**, calculate the average percentage of silk in the material by subtracting it from 100.

5.2 Textile Materials Containing Protein Fibres

5.2.1 Follow the procedure specified in **5.1.1.1** to **5.1.1.7** except that dissolve the silk in 80 percent (*m/v*) sulphuric acid solution instead of 5 percent sodium hydroxide solution as specified in **5.1.1.4.**

6 MARKING

6.1 The silk textile materials shall be marked with the following information:

a) Name of the textile material for example chiffon, soft silk, crepe, etc;

b) Blend composition when 'Pure Silk' or 'Blended Silk' or 'Part Silk';

c) Variety of Silk that is Mulberry Silk, ENDI, Muga Silk or Tasar (Tussah) Silk;

d) Batch number and date of manufacture for traceability;

e) Indication of the source of manufacture;

f) Any other information as required under law; and

g) Care labelling symbols as per IS 14452 depending upon end use.

NOTE — The requirements specified in this standard apply to silk products containing any particular individual variety of silk such as Mulbery Silk, ENDI, Muga Silk and Tassar Silk or their admixtures. However, the varieties of silks covered in their admixtures may also be marked along with their respective percentages as far as possible.

6.2 BIS Certification Marking

The product may also be marked with the Standard Mark.

6.2.1 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act*, 1986 and the Rules and Regulations made thereunder. The details of conditions under which the licence for use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

7 SAMPLING AND CRITERIA FOR CONFORMITY

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

ANNEX B
(Foreword)

COMMITTEE COMPOSITION

Silk and Silk Products Sectional Committee, TXD 28

Organization	*Representative(s)*
Central Silk Technological Research Institute, Bangalore	DR T. H. SOMASHEKAR (***Chairman***) SHRI SUBRATO ROY (*Alternate*)
Association of Corporations & Apex Societies of Handlooms, New Delhi	SHRI ABDUAL REHMAN
Central Silk Board, Bangalore	DEPUTY SECRETARY (INSPECTION) ASSISTANT SECRETARY (INSPECTION) (*Alternate*)
Chamundi Textiles (Silk Mills) Limited, Bangalore	SHRI A. L. MUTHIAH
Directorate of Handlooms & Textiles, Government of Tamil Nadu, Chennai	SHRI THIRU M. E. BALRAJ
Himatsingka Seide Limited, Bangalore	SHRI MOHAN RAO SHRI S. A. VISHVANATH (*Alternate*)
Indian Silk Export Promotion Council, Mumbai	SHRI T. V. MARUTHI
Karnataka Silk Industries Corporation, Bangalore	SHRI RAJ KUMAR
Karnataka State Sericulture Development Institute, Bangalore	SHRI V. G. HALLIYAL SHRI RAVINDRA BHANDIWAD (*Alternate*)
Khadi & Village Industries Commission, Mumbai	REPRESENTATIVE
National Handloom Development Corporation Ltd, Lucknow	SHRI V. K. GOYAL SHRI S. RAUTELA (*Alternate*)
Office of Development Commissioner for Handlooms, Government of India, New Delhi	PRINCIPAL, INDIAN INSTITUTE OF HANDLOOM TECHNOLOGY, SALEM
Office of Director of Handloom & Textiles, Government of Karnataka, Bangalore	JOINT DIRECTOR (TEXTILES) DEPUTY DIRECTOR (HANDLOOMS) (*Alternate*)
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Shriram Institute for Industrial Research, Delhi	MS NEENA SEHGAL DR R. K. RAINA (*Alternate*)
Silk Conditioning and Testing House, Bangalore	REPRESENTATIVE
The Tamil Nadu Handloom Weaver's Cooperative Society Ltd, Chennai	SHRI G. GUNASEKARAN SHRI ALOK BABELAY (*Alternate*)
Weavers' Service Centre, Ministry of Textiles, Bangalore	DIRECTOR DEPUTY DIRECTOR (*Alternate*)
BIS Directorate General	SHRI M. S. VERMA, Scientist 'F' & Head (Textiles) [Representing Director General (*Ex-officio*)]

Member Secretary
SHRI J. K. GUPTA
Scientist 'C' (Textiles), BIS

MGIPF—658 Deptt. of BIS/2008—16.09.2008—300 Books.

Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act,* 1986 to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

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Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards: Monthly Additions'.

This Indian Standard has been developed from Doc : No. TXD 28 (0851).

Amendments Issued Since Publication

Amendment No.	Date of Issue	Text Affected

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Printed by the Manager, Govt. of India Press, Faridabad

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