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(බලවේග හා අන්යන්තු)**

**CEYLON STANDARD SPECIFICATION FOR
COTTON SAREES AND SAREE MATERIALS
(HANDLOOM & POWERLOOM)**

**ලංකා ප්‍රමිති කාර්යාංශය
BUREAU OF CEYLON STANDARDS**

**CEYLON STANDARD SPECIFICATION FOR COTTON SAREES
AND SAREE MATERIALS (HANDLOOM & POWERLOOM)**

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This Standard does not purport to include all the necessary provisions of a contract.

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**CEYLON STANDARD SPECIFICATION FOR COTTON SAREES
AND SAREE MATERIALS (HANDLOOM & POWERLOOM)**

FOREWORD

This Ceylon Standard Specification was prepared by the Drafting Committee on Textiles. It was approved by the Textiles Divisional Committee of the Bureau of Ceylon Standards and was authorised for adoption and publication by the Council of the Bureau on 6th May 1971.

This specification covers the requirements of cotton sarees and saree materials and is one of a series of Ceylon Standards on Cotton Textile Materials. Separate Ceylon Standards for other textile materials are under preparation. A list of Ceylon Standards on Textile Materials could be obtained from the Bureau of Ceylon Standards.

This standard is in two parts.

Part I — Specification for sarees and saree materials (Handloom)

Part II — Specification for sarees and saree materials (Powerloom)

The handloom and powerloom specifications for sarees and saree materials are being issued together, for the ready reference of the manufacturers who produce either or both types of these materials.

All quantities and dimensions specified in this standard are given in the inch pound system of units to which the industry is accustomed.

In view of the Ceylon Government's decision to change over to the International System of Units (S.I.), the metric equivalents have also been given in brackets.

In the preparation of this standard considerable assistance obtained from the Indian Standards Institution is acknowledged.

**PART I
COTTON SAREES AND SAREE MATERIALS (HANDLOOM)**

1. SCOPE

This specification prescribes the constructional details and other particulars of cotton sarees and saree materials (Handloom). It does not deal with the constructional details and dimensions of borders and headings.

TABLE I.

CONSTRUCTIONAL DETAILS OF COTTON SAREES (HANDLOOM)

	Count of Yarn in Cotton count (tex)		Ends per in. (10mm) in. (10mm)	Picks per in. (10mm) in. (10mm)	Mass in oz per square yard (g per square metre)	Minimum breaking load in lbf (deca newtons)	
	Warp	Weft				Warp	Weft
Type 1	40s (or 15)	40s (or 15)	56 (or 22)	52 (or 20)	1.93 (or 65)	47.5 (or 212)	39 (or 174)
Type 2	50s (or 12)	50s (or 12)	60 (or 24)	56 (or 22)	1.66 (or 56)	41 (or 183)	34 (or 152)
Type 3	60s (or 10)	60s (or 10)	64 (or 25)	58 (or 23)	1.34 (or 45)	36 (or 161)	29 (or 129)
Type 4	80s (or 7.2)	80s (or 7.2)	72 (or 28)	62 (or 24)	1.20 (or 41)	30.5 (or 136)	23 (or 103)
Type 5	2/100s (or 6×2)	50s (or 10)	60 (or 24)	62 (or 24)	1.59 (or 54)	45 (or 201)	31 (or 138)
Type 6	2/120s (or 5×2)	60s (or 10)	64 (or 25)	62 (or 24)	1.51 (or 51)	40 (or 178)	31 (or 138)
Type 7	2/100s (or 5×2)	2×120 (or 5×2)	64 (or 25)	62 (or 24)	1.49 (or 51)	—	—
Tolerance	± 5 percent		+ 5 percent - 2.5 percent		+ 5 percent - 2.5 percent		
Method of Test	C.S.44*		C.S.41†		C.S.42‡	C.S.43§	

*C.S.44 — “Method for the determination of the count of yarn removed from fabric from added matter”.

†C.S.41 — “Method for the determination of the number of threads per inch in woven fabric”.

‡C.S.42 — “Method for the determination of weight per unit length and per unit area of woven or knitted fabrics”.

§C.S.43 — “Methods for the determination of breaking load and extension of strips of woven fabrics”.

2. DEFINITION

2.1 Lot—The quantity of cloth of the same type and quality delivered to one buyer against one despatch note shall constitute a lot.

3. GENERAL REQUIREMENTS

3.1 Yarn—The yarn used in the manufacture of cloth shall be such that the cloth produced complies with the requirements of this standard (see also approximate count of yarn indicated in Table 1)

3.2 Cloth

3.2.1 The cloth when visually examined, shall be reasonably free from any defects.

3.2.2 The saree cloth shall be of plain weave.

4. SPECIFIC REQUIREMENTS

4.1 Construction—The cloth shall comply with the requirements of any one of the types specified in Table I. The permissible tolerances for various requirements and methods of test shall be as prescribed in this table.

TABLE 2.
COLOUR FASTNESS REQUIREMENTS

Fastness to :	Method	Numerical ratings
Daylight	C.S.62*	5 or better
Washing	C.S.55†	4 or better
Bleaching	C.S.88‡	4 or better
Perspiration	C.S.67§	4 or better

*C.S.62 — “Method for the determination of colour fastness of textile materials to daylight”.

†C.S.55 — “Method for the determination of colour fastness of textile materials to washing (Test 4)”.

‡C.S.88 — “Method for the determination of colour fastness of textile materials to bleaching with hypochlorite.”

§C.S.67 — “Method for the determination of colour fastness of textile materials to perspiration.”

C. S. 100 : 1971

4.2 Colour fastness—Dyed and/or printed cloth and died yarn used in borders, headings, checks, or stripes on cloths shall be fast to daylight, washing, bleaching and perspiration. The colour fastness ratings shall be in accordance with the requirements specified in Table 2 when tested by the relevant methods.

4.3 Scouring loss

4.3.1 The scouring loss of cloth shall not exceed 2.5 percent.

4.3.2 The percentage of scouring loss shall be determined by the method described in C.S.87*.

4.4 pH Value

4.4.1 The pH value of the aqueous extract of the cloth shall be not less than 6 nor be more than 8.5.

4.4.2 The pH value of the aqueous extract of the cloth shall be determined by the cold method described in C.S.86†.

4.5 Shrinkage

4.5.1 The shrinkage of cloth, warpway, or weftway shall not be more than 4 percent of the unshrunk materials.

4.5.2 The warpway and weftway shrinkage of cloth shall be evaluated by the method described in C.S.47‡.

4.5.3 The mean of all values obtained for warpway shrinkage (expressed as the percentage of the dimension before test) shall be taken as the percentage warpway shrinkage of the lot.

4.5.4 The mean of all values obtained for weftway shrinkage (expressed as the percentage of the dimension before test) shall be taken as the percentage weftway shrinkage of the lot.

*C.S.87 — “Method for the determination of scouring loss in grey and finished cotton textile materials.”

†C.S.86 — “Method for determination of pH value of aqueous extracts of textile materials.”

‡C.S.47 — “Method for shrinkage of fabrics : cold water immersion test.”

4.6 Width

4.6.1 The width of a saree shall be not less than 44 in (1.12m)

4.6.2 Width of each piece in the sample under test (see clauses 7.2.2 and 7.2.3.1) shall not vary at any place by more than 2 percent below or 4 percent above the specified width.

4.6.3 Width of the cloth in a lot shall be determined according to the method described in C.S. 46*.

4.7 Length

4.7.1 The length of an individual saree shall be not less than 5½ yards (5m)

4.7.2 Length of each of the pieces constituting the sample under test shall be determined according to the method described in C.S. 45†.

4.8 Skewness of weft

When tested in accordance with C.S.89‡ the mean skewness of the weft shall not exceed 6 percent and the value at any part of the fabric shall not exceed 10 percent.

5. PACKING

Sarees shall be packed in a manner acceptable to the purchaser.

6. LABELLING

The following information shall appear in legible and indelible marking on a label securely attached to the end of each saree.

- (a) Manufacturer's name or trade mark or both ;
- (b) Finish where applicable ;
- (c) Width in inches (millimetres) ;
- (d) Length in yards (metres) ;
- (e) Ceylon Standard type number ;
- (f) Type of fabric (Handloom or Powerloom)

*C.S.46 — " Method for the determination of width of woven or knitted fabric when relaxed at zero tension."

†C.S.45 — " Method for the determination of length of woven or knitted fabric when relaxed at zero tension."

‡C.S.89 — " Method for the determination of bow and skewness in woven fabric. "

7. SAMPLING

7.1 Sealed sample

7.1.1 In the case of contract on the basis of an agreed sample, the supply, in addition to complying with the above requirements, shall also conform to the sample in all other respects.

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

7.2 Sampling Procedure

7.2.1 Sample to determine conformity of a lot to the specification shall be selected so as to be representative of the lot.

7.2.2 Sample drawn in compliance with an agreement between buyer and seller, to evaluate the various characteristics of the cloth shall be held to be representative of the lot.

7.2.3 In case of dispute as to whether the material in the lot conforms to this specification or not, and there being no agreed method of drawing a representative sample, the sample selected to represent the lot shall consist of single pieces from bundles, constituting the early, middle and late parts of the lot in order of times of delivery, or in the case of single delivery, in order of serial bundle numbers. The pieces shall be selected from bundles constituting not less than 10 percent nor more than 50 percent of the lot, however they shall be not less than 3 percent nor more than 20 percent of the lot, by length.

7.2.3.1 When evaluating (1) ends per inch (or 10mm) and picks per inch (or 10mm) (2) mass per yd² (or m²) (3) Length and width and (4) skewness of the cloth in the lot, the gross sample shall constitute the test sample. When evaluating (1) breaking strength (2) fastness of colours in dyed, printed striped or checked cloth. (3) shrinkage (4) pH value and (5) scouring loss of cloth in the lot, the reduced sample, obtained by selecting at random one piece for every 10 or part of 10 pieces constituting the gross sample shall constitute the test sample. When evaluating shrinkage, one test specimen (or more than one, if necessary) shall be drawn from each of the pieces constituting the reduced sample provided that the total number of specimens drawn is at least three.

PART II

COTTON SAREES AND SAREE MATERIALS (POWERLOOM)

1. SCOPE

This specification prescribes the constructional details and other particulars of cotton sarees and saree materials (Powerloom). It does not deal with constructional details and dimensions of borders and headings.

2. DEFINITIONS

For the purpose of this standard the following definitions shall apply.

- 2.1 **Piece length**—is the length of an individual saree.
- 2.2 **Roll**—consists of 30 yards (27.5 m) of the saree material or multiples of 6 yards (5.5 m) lengths.
- 2.3 **Bale**—consists of several bundles packed together.
- 2.4 **Lot**—The quantity of cloth of the same type and quality delivered to one buyer against one despatch note.

3. GENERAL REQUIREMENTS

- 3.1 **Yarn**—The yarn used in the manufacture of cloth shall be such that the cloth produced complies with the requirements of this standard. (see also approximate count of yarn indicated in Table 1)

3.2 Cloth

- 3.2.1 The cloth shall be reasonably free from any flaw discernible to the eye when it is looked at (as distinct from being looked through) under ordinary daylight conditions. The person examining the cloth shall observe it from a distance of two feet (or his normal visual distance.). However, the buyer and the seller may agree as to the nature, frequency and method of determining permissible flaws in sarees or saree materials.

- 3.2.2 The cloth shall be of plain weave.

TABLE I.

CONSTRUCTIONAL DETAILS OF COTTON SAREES AND SAREE MATERIALS (POWERLOOM)

	Count of yarn Cotton count (tex)		Ends per inch (per 10 mm)	Picks per inch (per 10 mm)	Mass in oz. per square yard (g. per square metre)	Minimum breaking load in lbf (Deca newtons)	
	Warp	Weft				Warp	Weft
Type 1	30s (or 20)	40s (or 15)	44 (or 17)	44 (or 17)	2.06 (or 70)	50 (or 22.3)	33 (or 14.7)
Type 2	40s (or 15)	40s (or 15)	52 (or 20)	48 (or 19)	2.23 (or 76)	44 (or 19.6)	36 (or 16.4)
Type 3	60s (or 10)	60s (or 10)	60 (or 24)	56 (or 22)	1.55 (or 53)	34 (or 15.2)	28 (or 12.5)
Type 4	60s (or 10)	60s (or 10)	64 (or 25)	60 (or 24)	1.80 (or 61)	30 (or 13.4)	30 (or 13.4)
Type 5	60s (or 10)	80s (or 7.2)	70 (or 28)	54 (or 21)	1.23 (or 42)	39 (or 17.4)	20 (or 8.9)
Tolerance	± 5 per cent		+ 5 percent - 2.5 percent	+ 5 percent - 2.5 percent	+ 5 percent - 2.5 percent	— — —	
Method of test	C.S.44*		C.S. 41†		C.S.42‡	C.S. 43§	

*C.S.44 — “ Method for the determination of the count of yarn removed from fabric, free from added matter. ”

†C.S.41 — “ Method for the determination of the number of threads per inch in woven fabric. ”

‡C.S.42 — “ Method for the determination of weight per unit length and per unit area of woven or knitted fabrics. ”

§C.S.43 — “ Method for the determination of breaking load and extension of strips of woven fabrics. ”

4. SPECIFIC REQUIREMENTS

- 4.1 Construction**—The cloth shall comply with the requirements of any one of the types specified in Table 1. The permissible tolerances for various requirements and the methods of test shall be as prescribed in this table.
- 4.2 Colour fastness**—Dyed and/or printed cloth and dyed-yarn used in borders, headings checks, or stripes on cloth shall be fast to daylight, washing, bleaching and perspiration. The colour fastness ratings shall be in accordance with the requirements specified in Table 2, when tested by the relevant methods :—

TABLE 2.
COLOUR FASTNESS REQUIREMENTS

Fastness to	Method	Numerical ratings
Daylight	C.S.62*	5 or better
Washing	C.S.55†	4 or better
Bleaching	C.S.88‡	4 or better
Perspiration	C.S.67§	4 or better

4.3 Scouring loss

4.3.1 The scouring loss of cloth shall not exceed 2.5 percent.

4.3.2 The percentage of scouring loss shall be determined by the method described in C.S.87.||

4.4 pH Value

4.4.1 The pH Value of the aqueous extract of the cloth shall be not less than 6 nor be more than 8.5

*C.S.62 — “Method for the determination of colour fastness of textile materials to daylight.”

†C.S.55 — “Method for the determination of colour fastness of textile materials to washing (Test 4)”.

‡C.S.88 — “Method for the determination of colour fastness of textile materials to perspiration”.

§C.S.67 — “Method for the determination of colour fastness of textile materials to bleaching with hypochlorite”.

||C.S.87 — “Method for the determination of scouring loss in grey and finished cotton textile materials”.

C. S. 100: 1971

4.4.2 The pH Value of the aqueous extract of the cloth shall be determined by the cold method described in C.S.86.*

4.5 Shrinkage

4.5.1 Shrinkage of cloth, warpway or weftway, shall be not more than 4 percent of the unshrunk materials.

4.5.2 Warpway and weftway shrinkage of the cloth shall be evaluated by the method described in C.S.47†.

4.5.3 The mean of all values obtained for warpway shrinkage (expressed as the percentage of the dimension before test) shall be taken as the percentage warpway shrinkage of the lot.

4.5.4 The mean of all values obtained for weftway shrinkage (expressed as the percentage of the dimension before test) shall be taken as percentage weftway shrinkage of the lot.

4.6 Width

4.6.1 The width of a saree or of a saree material shall be not less than 44 inches (1.12 m).

4.6.2 Width of each piece in the sample under test (see Clauses 7.2.2. and 7.2.3.1) shall not vary at any place by more than 1 percent below or 2 percent above the specified width.

4.6.3 Width of the cloth in a lot shall be determined in accordance with the method described in C.S. 46‡.

4.7 Length

4.7.1 The length of an individual saree shall not be less than 5½ yards (5 m).

4.7.2 Length of cloth in a roll shall be as specified in an agreement between buyer and seller, or in the case of a partial delivery, as may have been declared or marked.

*C.S.86 — “ Method for the determination of pH Value of aqueous extracts of textile materials ”.

†C.S.47 — “ Method for the shrinkage of fabrics : cold water immersion test ”.

‡C.S.46 — “ Method for the determination of width of woven or knitted fabrics when relaxed at zero tension ”.

4.7.3 Length of each of the pieces constituting the sample under test (see Clauses 7.2.2 and 7.2.3.1) shall be determined in accordance with the method described in C.S.45.*

4.8 Selvedges

The selvedges shall be straight and evenly woven.

4.9 Skewness of weft

When tested in accordance with C.S.89† the mean skewness of the weft shall not exceed 6 percent and the value at any part of the fabric shall not exceed 10 percent.

5. PACKAGING

Sarees and saree materials shall be packed in the following manner in bales.

5.1 Bales—The individual sarees and/or saree materials in rolls, having the required length shall be completely wrapped with kraft paper, waterproof paper and jute hessian. Only individual sarees or saree materials of the same type and finish shall be packed together in the same bale.

6. LABELLING AND MARKING

6.1 Labelling—The following information shall appear in legible and indelible marking on a label securely attached to the end of each saree or roll.

- (a) Manufacturer's name or trade mark or both.
- (b) Finish where applicable.
- (c) Width in inches (millimetres).
- (d) Length in yards (metres).
- (e) Ceylon standard type number.
- (f) Type of fabric (handloom or powerloom).

*C.S.45 — “ Method for the determination of length of woven or knitted fabrics when relaxed at zero tension ”.

†C.S.89 — “ Method for the determination of bow and skewness in woven fabric ”.

C. S. 100 : 1971

6.2 Marking—The following information if required by the purchaser shall appear in legible and indelible marking on the outside of each bale.

- (a) Manufacturer's name.
- (b) Package number and contents.
- (c) Gross weight.
- (d) Finish and where applicable, colour.
- (e) Width in inches (millimetres).
- (f) Total length in yards (metres).
- (g) Number (quantity) of bundles or rolls.

7. SAMPLING

7.1 Sealed sample

7.1.1 In the case of a contract on the basis of an agreed sample, the supply, in addition to complying with the above requirements, shall also conform to the sample in all other respects.

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

7.2. Sampling procedure

7.2.1 Sample to determine conformity of a lot to the specification shall be selected so as to be representative of the lot.

7.2.2 The sample drawn in compliance with an agreement between buyer and seller, to evaluate the various characteristics of the cloth, shall be considered to be representative of the lot.

7.2.3 In case of dispute as to whether the material in the lot conforms to this specification or not, and there being no agreed method of drawing a representative sample, the sample selected to represent the lot shall consist of single pieces from bales constituting, the early, middle and late parts of the lot in order of time of delivery, or in the case of single delivery, in order of serial bale numbers. The pieces shall be selected from bales constituting not less than 10 percent nor more than 50 percent of the lot, however they shall be not less than 3 percent nor more than 20 percent of the lot by length. These pieces shall constitute the **gross sample**.

- 7.2.3.1 When evaluating (1) ends per inch (or 10mm) and picks per yard² (or m²) (2) mass per inch (or 10mm) (3) length and width and (4) skewness of the cloth in the lot, the gross sample shall constitute test sample. When evaluating (1) breaking strength, (2) fastness of colours in dyed, printed, striped or checked cloth, (3) shrinkage (4) pH value and (5) Scouring loss of the cloth in the lot, the reduced sample obtained by selecting at random one piece for every 20 or part of 20 pieces constituting the gross sample shall constitute the test sample. When evaluating shrinkage, one test specimen (or more than one, if necessary) shall be drawn from each of the pieces constituting the reduced sample provided that the total number of specimens drawn is at least three.

BUREAU OF CEYLON STANDARDS

The Bureau of Ceylon Standards (BCS) is the national standards organisation of Ceylon and was established by the Hon. Minister of Industries & Fisheries, as provided for by the Bureau of Ceylon Standards Act, No. 38 of 1964.

The principal objects of the Bureau as set out in the Act are to promote standards in industry and commerce, prepare national Standards Specifications and Codes of Practice and operate a Standardisation Marks Scheme and provide testing facilities, as the need arises.

The Bureau is financed by Government grants and the sale of its publications. Financial and administrative control is vested in a Council appointed in accordance with the provisions of the Act.

The detailed preparation of Standard Specifications are done by Drafting Committees composed of experts in each particular field assisted by permanent officers of the Bureau. These Committees are appointed by Divisional Committees, which are appointed by the Council. All members of the Drafting and Divisional Committees render their services in an honorary capacity. In preparing the Standard Specifications the Bureau endeavours to ensure adequate representation of all view points.

In the international field the Bureau represents Ceylon in the International Organisation for Standardisation (ISO) and will participate in such fields of Standardisation as are of special interest to Ceylon.