

SRI LANKA STANDARD 172 : 1999

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**SPECIFICATION FOR
BANDAGE
(FIRST REVISION)**

SRI LANKA STANDARDS INSTITUTION

Gr.4

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FOREWORD

This standard was approved by the Sectoral Committee on Textiles, Clothing and Leather and was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 1999-11-11.

This standard was first published in 1972. In this revision, a detailed sampling procedure for acceptance of a lot is proposed and to quantify extraneous material, a characteristic for foreign matter has been included. Instead of different grades, three types of bandages suitable for surgical dressing is recommended.

Guidelines for the determination of a compliance of a lot with the requirements of this standard based on statistical sampling and inspection are given in Appendix A.

For the purpose of deciding whether a particular requirement of this specification is complied with the final value, observed or calculated, expressing the result of a test or an analysis, shall be rounded off in accordance with CS 102. The number of significant places retained in the rounded off value shall be the same as that of the specified value in this specification.

The preparation of this standard, the valuable assistance derived from the following publications are gratefully acknowledged:

IS 863 : 1988 Indian standard Specification for handloom Cotton bandage cloth (non-sterilized)

British Pharmacopeia; 1988

1 SCOPE

This specification prescribes the requirement and methods of test for bandage to be used for surgical dressings or to protect dressings.

2 REFERENCES

- SLS 20 Determination of linear density of yarn from packages by skein method.
- SLS 41 Determination of the number of threads per centimeter in woven fabrics
- SLS 42 Determination of mass per unit length and per unit area of woven or knitted fabrics
- CS 43 Determination of breaking load and extension of strips of woven textile fabric
- SLS 44 Determination of linear density of yarn removed from fabric

SLS 45	Measurement of length of woven fabric
SLS 46	Measurement of width of woven fabric
SLS 86	Determination of pH value of aqueous extracts of textile materials
SLS 87	Determination of scouring loss in grey and finish cotton textile materials
CS 102	Presentation of numerical values
SLS 151	Quantitative Chemical analysis of binary mixtures of polyester fibers with cotton viscose yarns
SLS 175	Quantitative Chemical analysis of mixtures of viscose rayon and cotton
SLS 395	Specification for absorbent cotton gauze
SLS 428	Random sampling method

3 REQUIREMENTS

3.1 General requirements

3.1.1 The bandage cloth shall be of plain weave in which warp and weft threads consist of cotton, of viscose or of cotton blended with viscose yarn bleached to a good white and purified. The count of yarn shall be not less than 15 Tex when determined by the method given in **SLS 20** or **SLS 44**. The bandage shall be in one continuous length having no joints.

NOTE 1 : In the event of seeking a test certificate on this product, either the purchaser, supplier or any other interested party is advised to produce to the testing authority the packages of warp and weft threads used for manufacturing the product along with the samples, as appropriate.

NOTE 2 : For testing purposes, the composition of yarn may be quantified in accordance with **SLS 151** or **SLS 175**.

NOTE 3 : Hydrogen peroxide is recommended for bleaching.

3.1.2 The cloth shall be free from fillers, sizing, dressing material and any weaving defects.

3.1.3 If agreed to between the supplier and the purchaser, the bandage cloth may be with well formed or cut selvages according to the agreed dimension and supplied in roll form. In case of cut bandages, both extreme edges shall be straight and evenly cut parallel to warp threads freed from loose threads.

3.1.4 The bandage cloth when examined under screened ultra-violet light of approximately 365 nm wave length, not more than an occasional point of fluorescence shall be visible.

3.2 Specific requirements

3.2.1 The bandage cloth shall also conform to the requirements given in Table 1 when tested in accordance with the methods given in column 6 of the table.

TABLE 1 : Requirements of cotton bandage cloth.

SI No.	Characteristic	Requirement			Method of test
		Type 1	Type 2	Type 3	
(1)	(2)	(3)	(4)	(5)	(6)
(i)	Threads/dm, min. a) Ends b) Picks	170 105	150 90	120 90	SLS 41
(ii)	Mass, g/m ² , min.	38	33	306	SLS 42

3.2.2 Breaking strength

The breaking strength in warp ways shall be not less than 90 N when determined in accordance with the method given in CS 43.

3.2.3 Length

Unless otherwise specified by the purchaser, the length of the bandage shall be not less than 4.5 m when determined in accordance with the method given in SLS 45.

3.2.4 Width

Unless otherwise specified by the purchaser, the width of the bandage shall be 63 mm when determined in accordance with the method given in SLS 46.

A tolerance of ± 1 mm shall be permitted on the width of the bandage.

3.2.5 pH value

The pH value of the aqueous extract of the cloth shall be between 6.5 and 8.5 when tested in accordance with the method given in SLS 86.

3.2.6 Scouring loss

The scouring loss of the cloth shall not exceed 2 percent when determined in accordance with the method given in **SLS 87**.

3.2.7 Foreign matter

The content of foreign matter shall not exceed 1.5 percent when tested in accordance with the method given in the Appendix F of **SLS 395**.

4 PACKAGING AND MARKING

4.1 Packaging

The bandage cloth rolls shall be neatly and securely wrapped around its circumference using blue or brown paper and leaving only the ends uncovered. Suitable number of such rolls shall be wrapped in blue or brown paper to form a packet and securely glued at each end, so as to protect against soiling and contamination.

The packages so wrapped and of same type, width and length, may be packed in suitable bulk containers.

4.2 Marking

4.2.1 Retail packages

Each package shall be legibly and indelibly marked or labelled with the following:

- a) Name and type of bandage;
- b) Length and width of the bandage;
- c) Manufacturer's name and address;
- d) Batch number or code number;
- e) Brand name or trade mark, if any; and
- f) The words 'not sterilized'.

4.2.2 Bulk packages

Each package shall be legibly and indelibly marked or labelled with the following:

- a) Name and type of bandage;
- b) Length and width of the bandage;
- c) Number of retail packages;
- d) Name and address of the manufacturer; and
- e) Batch number or code number.

APPENDIX A

COMPLIANCE OF A LOT

The sampling scheme given in this Appendix should be applied where compliance of a lot to the requirements of this standard is to be assessed based on statistical sampling and inspection.

When compliance with this standard is to be assessed based on manufacturer's control systems coupled with type testing and check tests or any other procedure an appropriate scheme of sampling and inspection should be adopted.

A.1 LOT

In any consignment all packages of bandages of same type and construction and belonging to one batch of manufacture or supply shall constitute a lot.

A.2 SCALE OF SAMPLING

A.2.1 Samples shall be tested from each lot for ascertaining its conformity to the requirements of this specification.

A.2.2 The number of retail packages to be selected from a lot shall be in accordance with column 2 of Table 2. The packages shall be selected from at least 10 percent of bundles of cartons in such a way that an equal number of packages as far as possible, being drawn from each bundle or carton.

A.2.3 The bundles or cartons and retail packages shall be selected at random. In order to ensure randomness of selection, tables of random numbers as given in **SLS 428** may be used.

A.3 NUMBER OF TESTS

A.3.1 Each package selected as in **A.2.2** shall be inspected for marking and packing requirements given in 4.2.1

A.3.2 Each bundle or carton selected as in **A.2.2** shall be inspected for packing and marking requirements given in 4.2.2.

A.3.3 Each package selected as in **A.2.2** shall be inspected/measured for the requirements given in 3.1.2, 3.1.3, 3.1.4, 3.2.3, 3.2.4.

A.3.4 Each package selected as in column 4 of Table 2 shall be tested for the requirements given in 3.1.1, 3.2.1, 3.2.2, 3.2.5, 3.2.6, and 3.2.7.

A.4. CRITERIA FOR CONFORMITY

A lot shall be declared as conforming to the requirements of this specification if the following conditions are satisfied.

A.4.1 Each package inspected as in **A.3.1** satisfies the marking and packing requirements.

A.4.2 Each bundle or carton inspected as in **A.3.2** satisfies the marking and packing requirements.

A.4.3 The packages inspected/measured as in **A.3.3** satisfy the requirements given therein such a way that the number of non conforming packages observed in the lot shall not exceed the permissible number allowed as given in column 3 of Table 2.

A.4.4 All the packages tested as in **A.3.4** satisfy all the requirements given therein.

TABLE 2 - Scale of Sampling

Number of packages in the lot (1)	Number of packages to be selected (2)	Permissible number of nonconforming packages (3)	Number of packages to be tested for the requirements related to A.3.4 (4)
Up to 500	8	0	2
501 - 1200	13	1	3
1201 - 3200	20	2	5
3201 and above	32	3	8

SLS CERTIFICATION MARK

The Sri Lanka Standards Institution is the owner of the registered certification mark shown below. Beneath the mark, the number of the Sri Lanka Standard relevant to the product is indicated. This mark may be used only by those who have obtained permits under the SLS certification marks scheme. The presence of this mark on or in relation to a product conveys the assurance that they have been produced to comply with the requirements of the relevant Sri Lanka Standard under a well designed system of quality control inspection and testing operated by the manufacturer and supervised by the SLSI which includes surveillance inspection of the factory, testing of both factory and market samples.

Further particulars of the terms and conditions of the permit may be obtained from the Sri Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.



SRI LANKA STANDARDS INSTITUTION

The Sri Lanka Standards Institution (SLSI) is the National Standards Organization of Sri Lanka established under the Sri Lanka Standards Institution Act No. 6 of 1984 which repealed and replaced the Bureau of Ceylon Standards Act No. 38 of 1964. The Institution functions under the Ministry of Science & Technology.

The principal objects of the Institution as set out in the Act are to prepare standards and promote their adoption, to provide facilities for examination and testing of products, to operate a Certification Marks Scheme, to certify the quality of products meant for local consumption or exports and to promote standardization and quality control by educational, consultancy and research activity.

The Institution is financed by Government grants, and by the income from the sale of its publications and other services offered for Industry and Business Sector. Financial and administrative control is vested in a Council appointed in accordance with the provisions of the Act.

The development and formulation of National Standards is carried out by Technical Experts and representatives of other interest groups, assisted by the permanent officers of the Institution. These Technical Committees are appointed under the purview of the Sectoral Committees which in turn are appointed by the Council. The Sectoral Committees give the final Technical approval for the Draft National Standards prior to the approval by the Council of the SLSI.

All members of the Technical and Sectoral Committees render their services in an honorary capacity. In this process the Institution endeavours to ensure adequate representation of all view points.

In the International field the Institution represents Sri Lanka in the International Organization for Standardization (ISO), and participates in such fields of standardization as are of special interest to Sri Lanka.