SRI LANKA STANDARD 1061 : 1995

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SPECIFICATION FOR MOSQUITO NETS

SRI LANKA STANDARDS INSTITUTION

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SLS 1061 : 1995

(Attached AMD 213)

Gr. 6

SRI LANKA STANDARDS INSTITUTION
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Sri lanka

Sri Lanka Standards are subject to periodical revision in order to accommodate the progress made by industry. Suggestions for improvement will be recorded and brought to the notice of the Committees to which the revisions are entrusted.

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

Sri Lanka Standard
SPECIFICATION FOR MOSQUITO NETS

FOREWORD

This standard was finalised by the Sectoral Committee on Textiles, Clothing and Leather, and was authorised for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 1995-07-20.

Mosquito nets which are available in the market can be categorised into three types namely single bed, double bed and twin bed. In determining the quality of this widely used customer item more emphasis should be given not only to netting but also stitching and other attachments. In that case shape, size and dimensions of mosquito nets are very important. This standard which outlines requirements for manufacture and workmanship of mosquito nets will be a guidance for the buyer and will help consumer protection.

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.

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.

In the preparation of this standard, the valuable assistance derived from the following publication is gratefully acknowledged:

IS 9886 : 1981 Indian Standard Specification for mosquito nets.

1 SCOPE

This specification prescribes the requirements for mosquito nets.

2 REFERENCES

SLS 20 Determination of the size of yarns
SLS 41 Determination of the number of threads per centimetre in woven fabrics
SLS 42 Determination of mass per unit area of woven or knitted fabrics
SLS 45 Measurement of length of woven fabric
CS 52 Determination of colour fastness of textile materials to washing at 40 °C
CS 62 Determination of colour fastness of textile materials to daylight
SLS 90 Cotton poplins (Powerloom)
CS 102 Presentation of numerical values
CS 112 Cotton sewing thread
SLS 273 Cotton mosquito netting
SLS 428 Random sampling methods
SLS 757 Spun polyester sewing thread
SLS 839 Nylon mosquito netting for domestic use

3 REQUIREMENTS

3.1 Manufacture

3.1.1 *Fabric*

3.1.1.1 Netting

The fabric used for manufacture of mosquito nets shall conform to the relevant constructional and performance requirements prescribed in SLS 273 or SLS 839.

3.1.1.2 Top and other attachments

The fabric used for the top of the mosquito net and for other parts such as bands, frills, tying tapes etc. and which may be used to decorate, reinforce and strenthen the net shall be made from finished cotton or 65/35 polyester cotton/rayon fabrics having a mass not less than 120 g per square metre. A guide for manufacturing fabrics is given in Appendix C.

The colour of fabric shall match with the shade of netting.

3.1.2 *Defects*

The mosquito nets shall be free from defective holes (holes having diameter more than the normal hole size of the netting), stitching defects, stains and other observable defects.

3.1.3 *Colour*

The fabric shall be in white or any colour which is agreeable to the purchaser and the supplier.

3.1.4 *Sizes and dimensions*

3.1.4.1 The mosquito net shall be of any of the following:
(a) Single bed;
(b) Double bed; and
(c) Twin bed

3.1.4.2 The dimensions of mosquito nets (see **Fig. 1**) shall be as given in Table 1 unless otherwise specified in the agreement arrived between the purchaser and the supplier. The dimensions shall be measured by the method given in CS 45.

TABLE 1 - Sizes and dimensions

Sl. No. (1)	Characteristic (2)	Size of mosquito net		
		Single bed (3)	Double bed (4)	Twin bed (5)
(i)	Diameter of top support ring, mm	560 +20 -0	640 +20 -0	720 +20 -0
(ii)	Circumference at the top (fabric), mm	1 850 +50 -0	2 100 +50 -0	2 400 +50 -0
(iii)	Circumference at the centre, m, min.	4.25	5.00	9.25
(iv)	Circumference at bottom, m, min.	7.40	9.00	18.25
(v)	Height excluding bottom attachment, m, min.	2.40	2.40	2.40

3.1.4.3 A fabric frill of which the width is not less than 100 mm fixed around the top ring and fabric band of which the width is not less than 30 mm fixed around the bottom perimeter may be attached.

3.1.5 *Colour fastness*

The colour fastness of mosquito netting and attachments shall conform to the requirements given in Table 2 when tested as given in Column 4 of the table.

TABLE 2 - Requirements for colour fastness

Sl. No. (1)	Colour fastness to (2)	Rating, min. (3)	Method of test (4)
(i)	Light	4	CS 62
(ii)	Wash	4	CS 52

3.1.6 *pH value*

The pH value of mosquito netting when tested as given in CS 83 shall be between 6.0 and 8.5

3.1.7 *Dimensional change*

3.1.7.1 The dimensional change of mosquito netting when tested as prescribed in Clause 7.3 of SLS 839 shall be not more than 2 per cent in case of nylon netting and 10 per cent in case of cotton netting.

3.1.7.2 The dimensional change of fabric of top attachment when tested by the method given in Appendix B shall be not more than 2.5 per cent.

3.2 **Workmanship**

3.2.1 The mosquito net shall be of in bell shape unless otherwise agreed to between the supplier and the purchaser.

3.2.2 The body of the mosquito net shall be made of not less than four pieces assembled together to obtain the required shape of the mosquito net.

3.2.3 The top of the mosquito net which shall be in minimum of four equal pieces of fabric, shall be stitched together so as to strengthen the top of the net. All assembling parts shall be reinforced with tapes of same material.

3.2.4 The net shall be provided with suitable number of tying tapes (spreaders) of which the width is not less than 10 mm and fixed at the top at 8 places equally spaced to tie the net to the top ring.

3.2.5 The top support ring shall be of any suitable material made from cane, PVC condiut pipes etc. which has sufficient strength to withhold the mosquito net when it is hung at the required position.

3.2.6 A suspension ring made out of brass or any other suitable material and fixed to the upper centre of the top or any other suitable measures shall be provided to hang the mosquito net during its usage.

3.3 Stitching

The sewing thread used for stitching shall conform to CS 112 or SLS 757 whichever is deemed suitable for stitching.

The net shall be assembled with lock stitch of even tension throughout, with loose ends securely fastened off. For stitching where netting and other fabrics are used, lock stitch or plain stitch may be recommended.

4 PACKING AND MARKING

4.1 Packing

Each mosquito net shall be packed in a polythene or paper bag.

4.2 Marking

The following shall be marked or labelled legibly and indelibly on each individual package.

a) Name of the product;
b) Size of net;
c) Name and address of the manufacturer (including the country of origin);
d) Diameter of top support ring, in mm;
e) Registered trade mark, if any;
f) Brand name, if any; and
g) Batch identification mark.

NOTE

Attention is drawn to certification marking facilities offered by the Sri Lanka Standards Institution. See the inside back cover of the standard.

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.

Where compliance with this standard is to be assured based on manufacturing control system coupled with type testing and check tests or any other procedure, appropriate schemes of sampling and inspection should be adopted.

A.1 LOT

In any consignment all the packages of mosquito nets of the same size 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 conformity to the requirements of this specification.

A.2.2 The number of packages to be selected from a lot shall be in accordance with Table 3.

TABLE 3 - Scale of sampling

Number of packages in the lot (1)	Number of packages to be selected (2)	Acceptance number (3)
Up to 150	5	0
151 to 500	8	0
501 to 1 200	13	0
1 201 to 3 200	20	1
3 201 and above	32	2

A.2.3 The packages shall be selected at random. In order to ensure randomness of selection tables of random numbers as given in SLS 428 shall 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 and for requirement given in 3.1.3, 3.1.4.1, 3.2 and 3.3.

A.3.2 Each package selected as in A.2.2 shall be examined for requirements given in 3.1.2 and 3.1.4.2.

A.3.3 Select two packages examined as in A.3.2 and each package shall be individually tested for 3.1.1.2, 3.1.5, 3.1.6 and 3.1.7.

A.4 CRITERIA FOR CONFORMITY

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

A.4.1 Each package inspected as in A.3.1 satisfies the relevant requirements.

A.4.2 Number of nonconforming packages are less than or equal to the corresponding acceptance number given in Column 3 of the Table 3.

A.4.3 Each package tested as in A.3.3 satisfies the relevant requirements.

APPENDIX B
DETERMINATION OF DIMENSIONAL CHANGE OF TOP ATTACHMENT

PROCEDURE

B.1 Undo the stitches of seams and seperate the top attachment (top of the net) from netting. (Hereafter the top attachment is referred to as specimen.)

B.2 Expose the specimen to the conditioning atmospheres for not less than 12 h or until it reaches a constant mass.

B.3 Place the specimen on a smooth measuring table facing its reinforced surface downwards. Make at least three pairs of marks on randomly selected directions by indelible ink or using fine threads of contrast colour. Ensure that the distance between marks of each pair is at least 350 mm and no mark is marked within 100 mm from the border of the specimen.

B.4 Place the ruler on the specimen, taking care to avoid distortion of the specimen and record the distance between the pair of marks to the nearest 1 mm.

B.5 Soak the measured specimen, laying flat for 2 h in a tray containing water to which 0.5 g/l of efficient and acceptable wetting agent has been added.

B.6 After 2 h, remove the specimen without distortion from the tray and remove excess moisture by suitable means.

B.7 Lay the specimen on a smooth flat surface and allow it to dry at a temperative of 27 ± 2°C. Condition the specimen as done in B.2.

B.8 Measure the distances between corresponding marks under the same conditions applied as in B.4 and record them to the nearest 1 mm.

B.9 Calculate the percentage change of each individual dimension and the mean percentage dimensional change. Record the mean dimensional change to the nearest 0.1%.

APPENDIX C

TABLE 4 - Requirements of fabrics used for top and other attachments

Sl. No. (1)	Characteristic (2)	Requirement (3)	Method of test (4)
(i)	Linear density of yarn; Tex		SLS 20
	Warp direction	20	
	Weft direction	15	
(ii)	Threads/cm		SLS 41
	Ends	42	
	Picks	24	

NOTE

The following tolerances may be applied subject to satisfying the requirements given in 3.1.1.2.
Linear density of yarn - ± 1 Tex
Threads per centimetre - Not less than the value given.

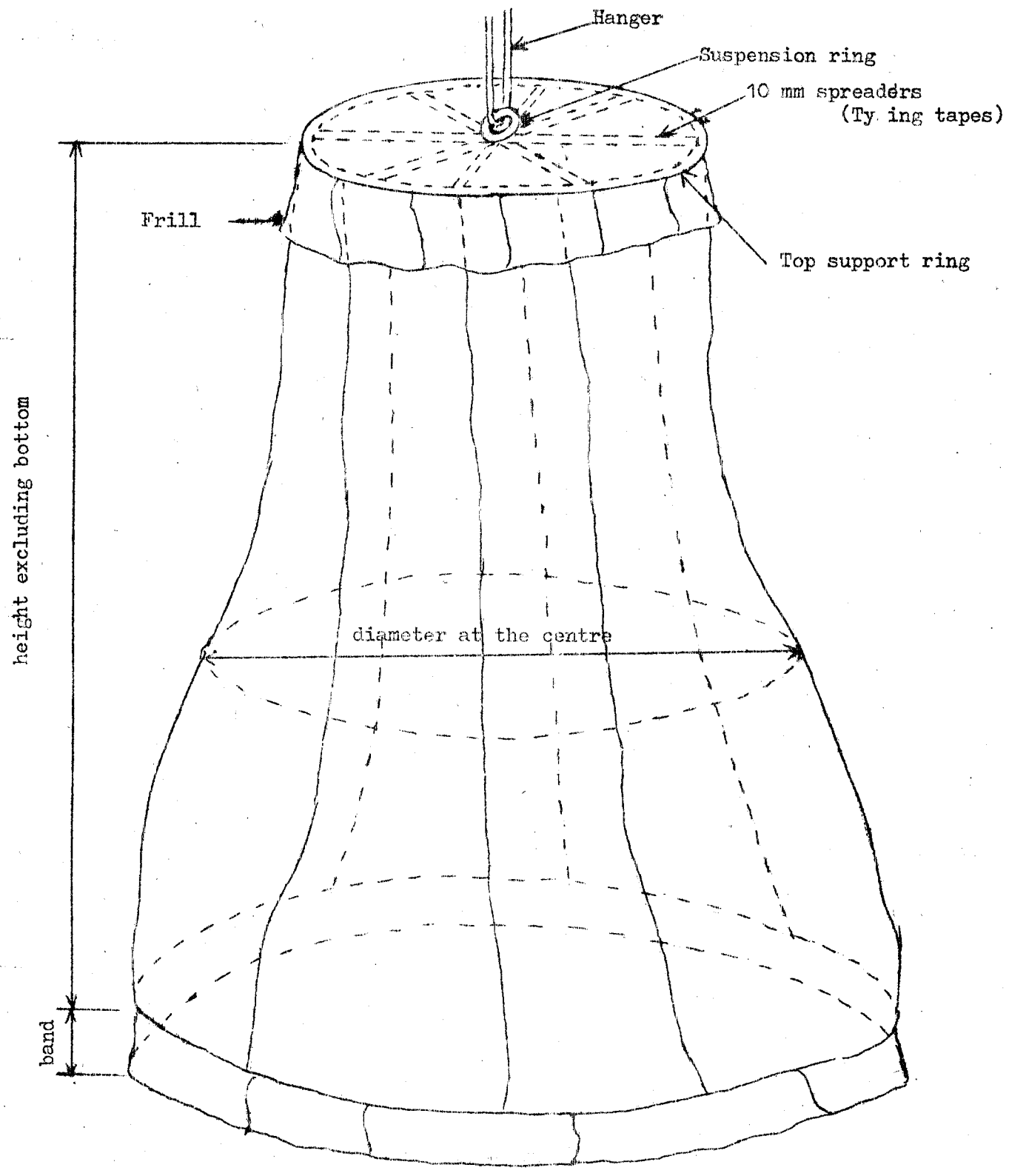

Fig 1 : Mosquito net

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Clause 3.1.1.2

Delete the existing text in Clause **3.1.1.2** and substitute the following:

The fabrics used for the top of the mosquito net shall be a woven or knitted cloth of stable construction having a mass not less than 120 g per square metre. If knitted fabrics have been used and of which mass per square metre is less than 120 g, two thicknesses of same material may be used to satisfy the minimum requirement. The other parts of net such as bands, tapes, tying tapes etc. which may be used to reinforce or strengthen the net shall also be made of either material.

For frills or other parts which may be used to decorate the net, the same netting material used for the body of the net may be used. However those parts shall be securely stitched or fastened off to prevent unraveling.

The colour of all parts mentioned above shall match with the shade of netting.

PAGE 4

Clause 3.2.2

Delete the existing text in Clause **3.2.2** and substitute the following:

The body of the mosquito net shall be made of not less than two pieces and not more than six pieces assembled together to obtain the required shape of the mosquito net.

Clause 3.2.3

Delete the existing text in Clause **3.2.3** and substitute the following:

The top of the net may be in one or more pieces of fabrics. If the top of the net is in one unit, the top shall be stitched and reinforced with tapes so as to equally divide the top into four parts. But if the top is in parts assembled together such parts shall be cut and assembled in such a way that the seams shall be on any radius of the circle of the top of the net. However those seams shall be reinforced with minimum of 4 tapes so as to align with the same seams. If there are more than 4 pieces, all pieces shall be reinforced.

PAGE 5

Clause 3.3

Include the following to the end of second paragraph.

The number of lock stitches or plain stitches per cm for net fabric and net/net shall be not less than 5 and 7 respectively.

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Appendix C

Delete Appendix **C.**

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.

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