

SRI LANKA STANDARD 1067 : 1995

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**SPECIFICATION FOR
MULTIWALL PAPER SACKS FOR
PACKAGING OF DESICCATED COCONUT**

SRI LANKA STANDARDS INSTITUTION

**Sri Lanka Standards
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PACKAGING OF DESICCATED COCONUT**

SLS 1067 : 1995

Gr. 5

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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.

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DESICCATED COCONUT**

FOREWORD

This standard was approved by the Sectoral Committee on Packaging, Paper and Board and was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 1995-08-24.

Guidelines for the determination of a compliance of a lot with the requirements of this standard based on statistical sampling and Inspection is given in Appendix 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 an analysis, should be rounded off in accordance with CS 102. The number of significant figures to be retained in the rounded off value should be the same as that of the specified value in this standard.

In the preparation of this standard the assistance derived from the following publication is gratefully acknowledged.

ISO/DIS 9884-1 : Tea sacks-specification

1 SCOPE

This standard prescribes the requirements and the methods of test for multi-wall kraft paper sacks for packaging of desiccated coconut.

2 REFERENCES

ISO 1924-2	Paper and board-Determination of tensile properties Part 2 Constant rate of elongation method
ISO 6590-1	Packaging sacks vocabulary and types Part 1 Paper sacks
ISO 6591-1	Packaging sacks description and method of measurement Part 1 Empty paper sacks
CS 102	Presentation of numerical values
SLS 338	Determination of substances of paper and board
SLS 428	Random sampling methods
SLS 474	Method for testing of paper and board for bursting strength after immersion in water for specified period
SLS 678	Methods of testing of paper for bursting strength
SLS 679	Methods of testing of paper for tearing resistance
SLS 699	Low density polyethylene films for packaging and allied purposes

3 DEFINITIONS

For the purpose of this standard the definitions given in ISO 6590-1 shall apply.

4 REQUIREMENTS

4.1 Materials

All material used in the construction of sacks shall be free from taint, odour and contaminants such as chlorophenols, chloroaniline and any material injurious to health.

4.1.1 *Adhesive*

A food grade adhesive capable of firmly adhering the seams shall be used in the construction of sacks. It shall be non-fungi forming.

4.1.2. *Kraft paper*

Normal kraft paper shall be used in the construction of sacks. The kraft paper used shall be free of defects (cracks, holes, creases, folds etc) which reduce serviceability of sacks.

4.1.2.1 Kraft paper used shall conform to the requirements given in Table 1, when tested according to the method given in Column 4 of the table.

TABLE 1 - Requirements for kraft paper

Sl No. (1)	Characteristic (2)	Requirement (3)	Method of test (4)
i)	Tensile index (N m/g), min. a) Machine direction b) Cross direction	55 30	ISO 1924 - 2
ii)	Stretch, per cent, min. a) Machine direction b) Cross direction	1.8 4.0	ISO 1924 - 2
iii)	Tensile energy absorption index, (J/g), min. a) Machine direction b) Cross direction	0.7 0.9	ISO 1924 - 2
iv)	Burst index, (kN/g), min. a) wet * b) dry	1.1 3.7	SLS 474 SLS 678
v)	Tear index, ** (mNm ² /g) min.	10.0	SLS 679

* Only for the ply 1

** Average of machine and cross direction

4.1.2.2 The grammage (substance) of the kraft paper used shall be as given in Table 2, when tested according to SLS 338.

A tolerance of -5 per cent shall be permitted on the specified grammage.

TABLE 2 - Sack composition and ply grammage

Sl No. (1)	Sack composition (2)	Grammage, (g/m ²) (3)
i)	Ply 1 Wet strength (outer) normal kraft paper	90
ii)	Ply 2 Normal kraft paper	70
iii)	Ply 3 Normal kraft paper	70
iv)	Ply 4 Normal kraft paper	70
v)	Ply 5 Normal kraft paper	70

4.1.3 The inner liner

The inner liner used shall be of food grade low density polyethylene (LDPE) conforming to SIS 699 having a thickness of at least 88 µm when tested as given in 7.1 or other food grade single layered, co-extruded or laminated material of equivalent or superior barrier and strength properties.

The dimension of the inner liner shall be in accordance with Table 3.

TABLE 3 - Dimensions of inner liner

Sl No.	Dimension	Requirement	
		50 kg nett (3)	25 kg nett (4)
(1)	(2)		
i)	Sack length, (mm), min.	1400	1200
ii)	Sack width, (mm), min.	660	660

4.2 Dimensions

4.2.1 Empty sack (lay-flat) dimensions

The empty sack dimensions shall be as given in Table 4, when measured according to clauses 4.1.2 and 5 of ISO 6951-1 :1984.

TABLE 4 - Dimensions of sack

Sl. No.	Dimensions	50 kg nett		25 kg nett	
		Minimum (3)	Maximum (4)	Minimum (5)	Maximum (6)
(1)	(2)				
i)	Sack length, mm	1200	1250	950	1000
ii)	Sack width, mm	460	480	455	475
iii)	Width of gusset, mm	215	225	95	105

4.3 Construction

Sacks shall be open mouth-sewn gusseted type comprised of required number of well nested plies as specified in 4.3.1 or 4.3.2. The kraft paper sack shall be machine stitched.

The liner shall be heat sealed along the entire width of the bag to ensure complete sealing.

4.3.1 Sacks for 50 kg nett content shall have not less than five plies, unless otherwise agreed to between the purchaser and the supplier.

4.3.2 Sack for 25 kg nett content shall have not less than three plies. The composition and ply grammage shall be as given in Table 2 up to ply 3.

5 PACKAGING

Sacks and inner liners of the same dimensions shall be firmly tied with suitable means to form bundles. A bundle shall consist of fifty or integral multiples of fifty sacks.

Five or integral multiples of five bundles shall be suitably wrapped to form packages and secured to prevent damage during handling.

Packaging operation shall be carried out under hygienic conditions. Packages shall be stored in such a manner to maintain the hygienic conditions of sacks and inner liners.

6 MARKING

6.1 Each package of wrapped bundles shall be marked legibly and indelibly or a label shall be attached to each unit with the following:

- i) Name and address of the manufacturer;
- ii) Number of sacks in the unit;
- iii) Dimensions of sack; and
- iv) Batch identification mark.

6.2 The following words shall be marked legibly and indelibly with food grade printing ink on each sack:

- i) "Desiccated coconut" in 60 mm print; and
- ii) "Produce of Sri Lanka" in 60 mm print.

6.3 The following words and any other information may be marked legibly and indelibly with food grade printing ink on each sack if requested by the purchaser:

- i) "Use no hooks" in 25 mm print; and
- ii) "Stow away from boilers" in 25 mm print.

7 METHODS OF TEST

Tests shall be carried out in accordance with 7.1 of this specification, ISO 1924-2, ISO 6591-1, SLS 678, SLS 679, and SLS 699.

7.1 Determination of thickness of inner liner.

Measure the thickness of the inner liner as given in Appendix A of SLS 699 at 20 randomly selected positions along the entire circumference of the polyethelene tube.

**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

A.1.1 In any consignment all sacks of the same size, belonging to one batch of manufacture or supply shall constitute a lot.

A.1.2 The number of paper sacks or inner liners in any inspection lot shall be not more than 50,000.

A.1.3 If a consignment submitted for inspection contains more than 50,000 paper sacks or inner liners of the same size, belonging to one batch of manufacture or supply, these sacks or inner liners shall be divided into two or more groups in such a way that each group consists of not more than 50,000 sacks. Each group thus obtained shall constitute a separate inspection lot.

A.2 SCALE OF SAMPLING

A.2.1 The number of sacks or inner liners to be selected from a lot shall be in accordance with Column 1 and Column 2 of Table 4.

TABLE 4 - Scale of sampling

Number of sacks or inner liners in a lot	Minimum number of sacks or inner liners to be selected
Not more than 250	3
251 to 500	4
501 to 1 200	5
1201 to 3 200	7
3201 to 10 000	10
10001 to 35 000	15
35001 to 50 000	20

A.2.2 The sacks or inner liners shall be selected from bundles. For this purpose at least 2 per cent of the packages subject to a minimum of 5 packages of sacks or inner liners shall be drawn to give the required sample size as specified in Column 2 of Table 4.

A.2.3 The bundles and the sacks or inner liners shall be selected at random. In order to ensure randomness of selection random number tables 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 examined for packaging and marking requirements given in 5 and 6.1.

A.3.2 Each sack selected as in A.2.1 shall be examined for marking (6.2) and tested for the requirement given in 4.1.2.1, grammage of each ply (4.1.2.2) and empty sack dimension (4.2.1).

A.3.3 Each inner liner selected as in A.2.1 shall be tested for requirements given in 4.1.3.

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 examined as in A.3.1 satisfies the relevant requirements.

A.4.2 Each sack examined and tested as in A.3.2 satisfies the relevant requirements.

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

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

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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.

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