

SRI LANKA STANDARD 972 : 1992

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**CODE OF PRACTICE FOR PACKAGING OF
LOBSTERS AND PRAWNS FOR EXPORT**

SRI LANKA STANDARDS INSTITUTION

CODE OF PRACTICE FOR PACKAGING OF LOBSTERS AND PRAWNS FOR EXPORT

SLS 972 : 1992

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

CONTENTS

	PAGE
FOREWORD	5
1 SCOPE	5
2 REFERENCES	5
3 PROCESSING OF PRAWNS AND LOBSTERS	6
4 RECOMMENDED PACKAGING SYSTEM	6
4.1 Glazing	6
4.2 Primary wrap	6
4.3 Unit cartons	6
4.4 Master cartons (corrugated boxes)	7
4.5 Carton closure	7
4.6 Storage and warehousing	7
 Appendices	
A Specifications for primary wrap/bag	8
B Specifications for unit cartons	8
C Specifications for master boxes	9
D Specifications for straps	11

SRI LANKA STANDARD

CODE OF PRACTICE FOR PACKAGING OF LOBSTERS AND PRAWNS FOR EXPORT

FOREWORD

This standard was finalized by the Sectoral Committee on Fish and Fishery Products and was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 1992-12-17.

Sri Lanka is exporting a considerable amount of frozen lobsters and prawns. Processing of quick frozen lobsters and prawns are covered in a separate code of practice which prescribes transporting of raw material, handling, processing, freezing and storage in detail. It sets out all the steps that are essential to be taken to maintain a safe high quality product from the time of catching until the product reaches the consumers.

This code establishes the existing packaging system and standardizes the packaging material and methods. It is intended to provide useful guidelines for the lobster and prawn industry which is geared towards the export market. In addition to the packaging system recommended, the vacuum packing also may be used.

Recommended specifications for the packaging materials are given in Appendices A to D.

During the formulation of this code due consideration has been given to the relevant provisions made under the Sri Lanka Food Act No. 26 of 1980 and the regulations framed thereunder.

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

1) The Export Packaging Note No. 21 - Guidelines for the Export Packaging of Frozen Shrimps, Indian Institute of Packaging.

1 SCOPE

1.1 This code recommends practices to be adopted in packaging of frozen lobsters and prawns for export.

1.2 It covers the materials, styles and modes of packaging.

2 REFERENCES

- ISO 2470 Measurement of diffuse blue reflectance factor (ISO brightness).
- ISO 3781 Tensile strength and percentage elongation.
- ISO 6427 Determination of matter extractable by organic solvents.
- SLS 208 Processing of quick frozen lobsters and prawns.
- SLS 338 Determination of substances of paper and paperboard.

- SLS 473 Method for testing of paper and board for water absorption -Cobb method.
- SLS 476 Method for testing of paper and board for bursting strength after immersion in water for a specified period.
- SLS 477 Method for testing of board for puncture resistance.
- SLS 800 Styles of fibreboard boxes.

3 PROCESSING OF PRAWNS AND LOBSTERS

Transporting of raw material, handling, processing, freezing and storage of prawns and lobsters should be carried out in accordance with SLS 208.

4 RECOMMENDED PACKAGING SYSTEM

4.1 Glazing

Glazing of prawns should be kept at the optimum level. To some extent, the amount of glazing used is determined by the size and grade of the prawns. Twenty per cent glazing, i.e. where glazing represents 20 per cent of the mass of the packed prawns, may be considered as a standard.

4.2 Primary wrap

The primary wrapping material used in contact with the frozen prawns/lobsters should be a low density polyethylene (LDPE) film or a low-density polyethylene bag. An alternative wrap can be provided using high molecular weight, high density polyethylene film (HM-HDPE), which is not as transparent as LDPE film but is more cost effective. The recommended gauges of the wrapping material are given in Appendix A.

4.3 Unit cartons (inner cartons)

4.3.1 When frozen blocks are wrapped in film the carton should be top opening. When bags are used, the cartons should be end opening. Details of specifications to be used for the carton in both cases are given in Appendix B.

4.3.2 The product name, net mass, type and size of prawns/lobster should be marked (see Note) on the carton.

NOTE

Any other information which may be required by the importing country also shall be marked, on every unit carton,

4.4 Master cartons (corrugated boxes)

4.4.1 There are three standard quantities of prawns currently packed: 6 units of 1.8 kg each, 6 units of 2 kg each and 10 units of 2 kg each. The specifications for the master cartons are given in Appendix C. The dimensions of cartons are not indicated in the specifications as they are determined by the size and the number of unit cartons to be packed.

4.4.2 Printing should be kept to a minimum indicating the net mass, type, size of prawns/lobster, the name and address of the producer and the country of origin.

4.4.3 Printing in one colour is recommended (see Note). The staples used for joining side walls of the carton should be treated for corrosion resistance.

NOTE

Fibre board boxes may be printed in a wide variety of colours and designs. However, heavy solid printing areas tend to reduce compression strength of boxes manufactured from corrugated fibre board.

4.5 Carton closure

Both the top and bottom of the carton should be closed using staples, suitably treated for corrosion resistance. As an alternative, two polypropylene straps can be used. Heat sealing is recommended for joining the straps rather than clips. The specifications for straps are given in Appendix D.

4.6 Storage and warehousing

Wooden pallets or racks to store the filled cartons should be used, wherever necessary (see Note). The use of rack storage should ensure that damage is avoided before the cartons leave the cold rooms.

NOTE

Special care should be taken when handling individually quick frozen (IQF) products or any other product that may be damaged due to the type of stacking.

APPENDIX A
SPECIFICATIONS FOR PRIMARY WRAP/BAG

- Material** : Low density polyethylene (LDPE)
or high molecular weight
high density polyethylene (HM-HDPE)
- Material gauge** : For use as primary wrap:
LDPE - 25 μm (100 gauge)
HDPE - 15 μm (60 gauge)
- For use as primary bag;
LDPE - 50 μm (200 gauge)
HDPE - 30 μm (120 gauge)

APPENDIX B
SPECIFICATIONS FOR UNIT CARTONS

B.1 DUPLEX BOARD

- Material** : Duplex board.
- Style of carton**: Preferably one piece stapleless carton.
Top opening where film wrap is used and end
opening where bag is used.
- Substance** : 300 g/m^2 minimum when tested in accordance with
SLS 338.
- Bursting strength** : 400 kPa minimum, when tested in accordance with
SLS 476.
- Wax coating** : On inner and outer sides. 10 g/m^2 minimum, on
each side when tested in accordance with ISO
6427.
- Brightness** : 60° ISO minimum, when tested in accordance with
ISO 2470.
- Printing details** : Net mass, type and size of prawns/lobster, the
name and address of the producer and the country
of origin.

B.2 CORRUGATED BOARD

- Material : E-flute corrugated fibreboard.
- Style of carton : Preferably one piece stapleless.
- Substance : Both liners and fluting 120 g/m² minimum when tested in accordance with SLS 338.
- Bursting strength : 550 kPa minimum when tested in accordance with SLS 476.
- Wax coating : On inner and outer sides. 10 g/m² minimum on each side when tested in accordance with ISO 6427.
- Printing details : Net mass, type and size of prawns/lobster, the name and address of the producer and the country of origin.

**APPENDIX C
SPECIFICATIONS FOR MASTER BOXES**

C.1 FOR 10-UNIT CARTONS WITH RECOMMENDED PLACEMENT, 2 LONG x 1 WIDE x 5 DEEP, TOP OPENING

- Material : Corrugated fibreboard.
- Style of box : FEFCO style 0201 (See SLS 800). Preferably constructed from one piece of board.
- Number of plies : 3- or 5-ply corrugated paperboard.
- Type of flute : B or C and combination of these.
- Position of flute : Vertical.
- Bursting strength : 1400 kPa minimum, when tested in accordance with SLS 476.
- Puncture resistance : 1.12 J when tested in accordance with SLS 477.
- Water absorption rate :
according to Cobb test
(30 minutes) : 120 g/m² maximum, when tested in accordance with SLS 473.

Manufacturer's joint : On the outside, by staples. The side of box forming the joint shall not overlap by less than 30 mm and should be fastened by staples not more than 60 mm apart, the first and the last staples being not further than 25 mm from the beginning and the end of the joint respectively. The staples shall be centrally located along the overlap.

Type of glue : Water resistant.

Wax coating : Waxing on both sides recommended. Wax coating of 15 g/m² minimum on each side when tested in accordance with ISO 6427. Minimum waxing should be done at least on external surface.

Printing details : Net mass, type, size of prawns/lobster the name and the address of the producer and country of origin.

C.2 FOR 6-UNIT CARTONS WITH RECOMMENDED PLACEMENT, 1 WIDE x 2 LONG X 3 DEEP, TOP LOADING

Material : Corrugated fibreboard.

Style of box : FEFCO style 0201 (See SLS 800). Preferably constructed from one piece of board.

Number of plies : 3-or 5-ply corrugated paper board.

Type of flute : B or C and combination of these.

Position of flute : Vertical.

Bursting strength : 1200 kPa minimum when tested in accordance with SLS 476.

Puncture resistance : 0.917 J minimum, when tested in accordance with SLS 477.

Manufacturer's joint : On the outside, by staples. The side of the box forming the joint shall not overlap by less than 30 mm and should be fastened by staples not more than 60 mm apart, the first and the last staples being not further than 25 mm from the beginning and end of the joint respectively. The staples shall be centrally located along the overlap.

Type of the glue : Water resistant.

- Water absorption rate : 120 g/m² maximum when tested in accordance with SLS 473.
according to Cobb test (30 minutes)
- Wax coating : Waxing on both sides recommended. Wax coating of 15 g/m² minimum on each side when tested in accordance with ISO 6427. Minimum waxing should be done at least on external surface.
- Printing details : Net mass, type, size of prawns/lobster the name and the address of the producer and the country of origin.

APPENDIX D
SPECIFICATIONS FOR STRAPS

- Closure : Minimum of two straps to be tensioned and preferably heat sealed.
- Type of strap : Polypropylene (PP).
- Width of strap : 12 mm.
- Tensile strength : 1,500 kg/cm² minimum, when tested in accordance with ISO 3781.
- Elongation : 20 per cent minimum, when tested in accordance with ISO 3781.

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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.