

Initiative of



Knowledge Partner



भारतीय पैकेजिंग संस्थान  
Indian Institute of Packaging

PACKAGING SPECIFICATIONS  
FOR EXPORTS

ONIONS (*Allium cepa*)

POTATOES (*Solanum tuberosum*)



# ONIONS / POTATOES

DIRECT BULK PACK

## Corrugated Fibreboard Box

POTATOES Capacity : 10 Kg

### A. Minimum Specifications

Material of Construction*	Corrugated Fibre Board	Corrugated Fibre Board	Corrugated Fibre Board	Corrugated Fibre Board
External Dimensions (mm)	400 x 300 x 180	400 x 300 x 180	400 x 300 x 180	400 x 300 x 180
Style of Box**	RSC - 0201	Telescopic - 0300	Telescopic - 0306	Telescopic - 0312
No. of Plies	5.0	Lid - 3 Tray - 3	Lid - 3 Tray - 3	Lid - 3 Tray - 5
Type of Flutes	B / B (Narrow)	Lid B (Narrow) Tray B (Narrow)	Lid B (Narrow) Tray B (Narrow)	Lid B (Narrow) Tray B / B (Narrow)
Direction of Flutes	Vertical	Vertical	Vertical	Vertical
Grammage (g/m <sup>2</sup> ) Outer to Inner (Indicative)	250 / 120 / 120 / 120 / 120	Lid : 250/150/150 Tray : 250/150/150	Lid : 250/150/150 Tray : 250/150/150	Lid : 250/150/150 Tray : 250/120/120/ 120 / 120
Burst Factor of Paper (Kraft) (Minimum)	20.0	20.0	20.0	20.0
Bursting Strength of Board (Kg/cm <sup>2</sup> ) (Minimum)	14.0	Lid : 11.0 Tray : 11.0	Lid : 11.0 Tray : 11.0	Lid : 11.0 Tray : 14.0
No. of Pieces per Box	Not more than two	Not more than two	Not more than two	Not more than two
Manufacturer's Joint	By gluing	By gluing	By gluing	By gluing
Compression Strength of Box (Kgf) (Minimum)	450	450	450	450
COBB (30 Minutes)*** (g/m <sup>2</sup> ) (Maximum)	60	60	60	60
No. of Ventilation Holes	16.0	16.0	16.0	16.0
Diameter (mm) and Position of Holes	20.0	20.0	20.0	20.0
Two Sides Each	3	3	3	3
Two Ends Each	1	1	1	1
Top & Bottom Each	4	4	4	4

### B. Recommended Specifications

Edge Crush (Kgf) (Minimum)	38.00	50.00	50.00	50.00
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\*Outer ply of white duplex board or bleached kraft

\*\*Or any other suitable style which provides equal strength and performance

\*\*\*Outer ply to be laminated or coated for water proofing

- Note:
- Dimensions of the box are modular to Euro pallets. However, any other dimensions or box styles to suit importers requirements could also be used.
  - Grammage mentioned is indicative. However, any other grammage which provides equal strength and performance can be used.
  - Diameter and no. of holes should be 20mm and 16 nos. respectively. However, sufficient ventilation depending upon the box style could also be used.



### Jute Bag

POTATOES (25 kg) / ONIONS (15 kg to 25 kg)

Type of Fabric	Hessian
Grammage (g/m <sup>2</sup> )	270
Ends/dm (or porter)	47
Tolerance	+ 2/-1
Picks/dm (or shots per inch)	47
Tolerance	+ 2/-1
Breaking Load (kgf)	
Warpway	110
Weftway	95
Seam Strength (kgf)	
Bottom Seam	34+ / - 1
Side Seam	36+ / - 1
Stitching	Shall be 10 mm from the edge. The number of stitches per 10 cm shall be between 9 & 11

Note: Wherever tolerances are not indicated the specified value to be considered as minimum value.

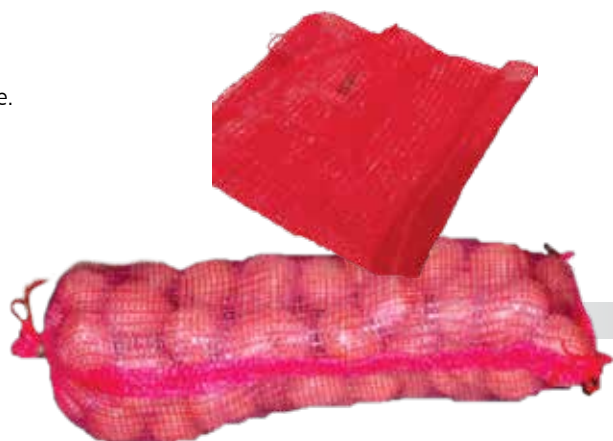


### Leno Bag

POTATOES (25 kg) / ONIONS (15 kg to 25 kg)

Type of Material	Polypropylene
Denier	
(Weight of the tape in grams of 9000 meters of tape length)	700
Mesh	
Warp per inch	5 Pairs (10 Tapes)
Weft per inch	5 Tapes
Stitching	Bottom sewing by chain sewing type. Mouth sewing by over lock or chain stitching. Bags can be provided with draw strings.

Note: Wherever tolerances are not indicated the specified value to be considered as minimum value.



# ONIONS / POTATOES

DIRECT BULK PACK

## Jute Bag

ONIONS Capacity : 1 kg / 5 kg.

Type Of Fabric	Hessian
Grammage (g/m <sup>2</sup> )	213
Ends/Dm (or Porter)	38
Tolerance	+ 2/ -1
Picks/Dm (or Shots Per inch)	31
Tolerance	+ 2/ -1
Breaking Load (kgf)	90
Warpway	60
Weftway	31
Seam Strength (kgf)	21+ / - 1
Bottom Seam	25+ / - 1
Side Seam	25+ / - 1
Stitching	Shall be 10 mm from the edge. The number of stitches per 10 cm shall be between 9 & 11

Note: Wherever tolerances are not indicated the specified value to be considered as minimum value.



## Leno Bag

ONIONS Capacity : 1 kg to 5 kg.

Type of Material	Polypropylene
Denier (Weight of the tape in grams of 9000 meters of tape length)	600
Mesh	5 Pairs (10 Tapes)
Warp per inch	5 Tapes
Weft per inch	5 Tapes
Stitching	Bottom sewing by chain sewing type. Mouth sewing by over lock or chain stitching. Bags can be provided with draw strings.

Note: Wherever tolerances are not indicated the specified value to be considered as minimum value.



## Specification Details for Reinforcement Material

### Pressure Sensitive Tape

- Material of Construction BOPP or PVC  
(Biaxally Oriented Polypropylene or Poly Vinyl Chloride)
- Thickness 20  $\mu$
- Width (Minimum) 50 mm
- Adhesive Property As per IS:3676-1986

*For further specification details refer IS:2880-1978*

### Reinforcement Strap

- Material of Construction PP (Polypropylene)
- Width (Minimum) 12 mm
- Thickness (Minimum) 0.05 mm
- Breaking Load (Minimum) 80 Kg / 12 mm width
- Elongation (Maximum) 25%



## APEDA and IIP: A Joint Initiative

Packaging is a co-ordinated system of preparing goods for transport, distribution, storage, retailing and end use.

The need for quality packaging for distribution and marketing of food products can hardly be over emphasised. With the thrust on promotion of exports, it is imperative that adequate attention be paid to packaging and logistics.

A comprehensive set of specifications for packaging of fresh fruits and vegetables is essential to help farm producers to effectively market their produce in a safe and cost-effective manner - in the domestic as well as export markets.

The Agricultural and Processed Food Products Export Development Authority (APEDA) and the Indian Institute of Packaging (IIP), have made efforts in the direction of developing packaging standards for fresh fruits, vegetables and as per the international requirements.

The packaging standards drawn up by the IIP would immensely help the exporters in procuring quality packaging materials and ensuring safe delivery of the produce to the destination markets.