

Initiative of



Knowledge Partner



भारतीय पैकेजिंग संस्थान
Indian Institute of Packaging

PACKAGING SPECIFICATIONS
FOR EXPORTS

BANANA (*Musa paradisiaca*)

ORANGE (*Citrus sinensis*)



BANANA / ORANGE

DIRECT BULK PACK

BANANA

Corrugated Fibreboard Box

Capacity : 5 Kg

A. Minimum Specifications

Material of Construction*	Corrugated Fibre Board	Corrugated Fibre Board	Corrugated Fibre Board	Corrugated Fibre Board
External Dimensions (mm)	333 x 300 x 200	333 x 300 x 200	333 x 300 x 200	333 x 300 x 200
Style of Box**	RSC – 0201	Telescopic - 0300	Telescopic - 0306	Telescopic - 0312
No. of Plies	3.0	Lid - 3 Tray - 3	Lid - 3 Tray - 3	Lid - 3 Tray - 3
Type of Flutes	B (Narrow)	Lid B (Narrow) Tray B (Narrow)	Lid B (Narrow) Tray B (Narrow)	Lid B (Narrow) Tray B (Narrow)
Direction of Flutes	Vertical	Vertical	Vertical	Vertical
Grammage (g/m ²) Outer to Inner (Indicative)	250 / 150 / 150	Lid : 250/150/150 Tray : 150/150/150	Lid : 250/150/150 Tray : 250/150/150	Lid : 250/150/150 Tray : 250/150/150
Burst Factor of Paper (Kraft) (Minimum)	20.0	20.0	20.0	20.0
Bursting Strength of Board (Kg/cm ²) (Minimum)	11.0	Lid : 11.0 Tray : 11.0	Lid : 11.0 Tray : 11.0	Lid : 11.0 Tray : 11.0
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)	350	350	350	350
COBB (30 Minutes)*** (g/m ²) (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)	43.00	43.00	43.00	43.00
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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.



BANANA
Corrugated Fibreboard Box
Capacity : 7 Kg
A. Minimum Specifications

Material of Construction*	Corrugated Fibre Board	Corrugated Fibre Board	Corrugated Fibre Board	Corrugated Fibre Board
External Dimensions (mm)	333 x 390 x 250	333 x 390 x 250	333 x 390 x 250	333 x 390 x 250
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 ²) 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 ²) (Minimum)	14.0	Lid : 11.0 Tray : 11.0	Lid : 11.0 Tray : 11.0	Lid : 11.0 Tray : 11.0
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 ²) (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)	34.00	43.00	43.00	43.00
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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.
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BANANA / ORANGE

DIRECT BULK PACK

BANANA Capacity : 13Kg/18kg

A. Corrugated Fibreboard Box

A. Minimum Specifications

Material of Construction*	Corrugated Fibre Board
External Dimensions (mm)	
13 Kg	545 x 330 x 255
18 Kg	750 x 300 x 200
Style of Box**	TELESCOPIC
No. of Plies	Lid :3 Tray : 5
Type of Flutes	Lid :B (Narrow) Tray : B/B (Narrow/ Narrow)
Direction of Flutes	Vertical
Grammage (g/m ²)	Lid : 250 / 150 / 150 Tray : 250 / 120 / 120 /120 / 120
Burst Factor of Paper (Kraft) (Minimum)	20.00
Bursting Strength of Board (Kg/cm ²) (Minimum)	Lid :11.0 Tray : 14.0
No. of Pieces per Box	Not more than two
Manufacturer's Joint	By gluing
Compression Strength of Box (Kgf) (Minimum)	500
COBB (30 Minutes)*** (g/m ²) (Maximum)	60
No. of Ventilation Holes	16.0
Diameter (mm) and Position of Holes	20.0
Two Sides Each	3
Two Ends Each	1
Top & Bottom Each	4
	One slot on each of the ends of the box

B. Recommended Specifications

Edge Crush (Kgf) (Minimum)	Lid : 37.00 / Tray : 38.00
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**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.

B. Specifications of Bag

Material of Construction*	High Molecular High Density Polyethylene (HMHDPE)
Weight of the Bag (gms)	30
Thickness (gauge)	100
Total Height of the Bag (mm)	810
Height of the Bag upto Seal (mm)	780
Length of the Bag (mm)	570
Total width of the Gusset (mm)	270
Perforations	Distance between two pinhole perforations should not be more than 25mm.

C. Ethylene Absorber Sachet

Material	Granules of mixture of potassium permagnate and clay packed in sachets. However, any sachet containing similar material and giving the same performance can also be used.
Weight of Material Inside the Sachet (gms) (max)	7gms
Dimension of Sachet (mm)	70 x 70

D. Specifications of Bubble Film

Diameter of Bubble (mm)	10
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ORANGES Capacity : 15kg
A. Corrugated Fibreboard Box
A. Minimum Specifications

Material of Construction*	Corrugated Fibre Board
External Dimensions (mm)	520 x 315 x 300
Style of Box**	TELESCOPIC - 0320
No. of Plies	3.0
Type of Flutes	B (Narrow)
Direction of Flutes	Vertical
Grammage (g/m ²) Outer to Inner (Indicative)	250 / 150 / 150
Burst Factor of Paper (Kraft) (Minimum)	25.00
Bursting Strength of Board (Kg/cm ²) (Minimum)	12.00
No. of Pieces per Box	Not more than two
Manufacturer's Joint	By gluing
Compression Strength of Box (Kgf) (Minimum)	500
COBB (30 Minutes)*** (g/m ²) (Maximum)	60
No. of Ventilation Holes	16.0
Diameter (mm) and Position of Holes	20.0
Two Sides Each	3
Two Ends Each	1
Top & Bottom Each	4
	One slot on each of the ends of the box

B. Recommended Specifications

Edge Crush (Kgf) (Minimum)	66.00
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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:

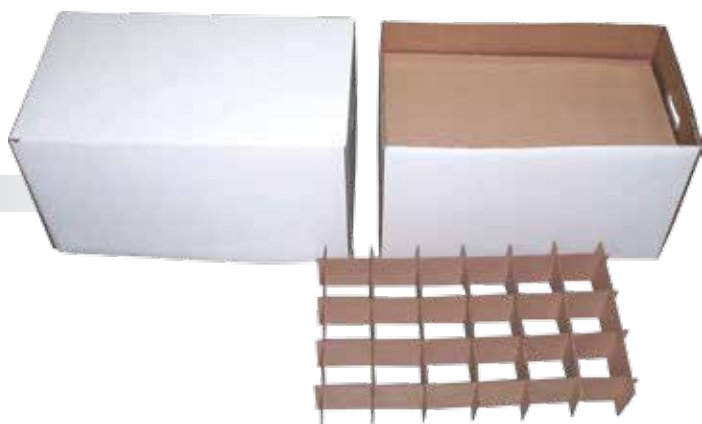
- Dimensions of the box are modular to Euro pallets. However, any other dimensions or box styles to suit importers requirements could also be used.
- Grammage mentioned is indicative. However, any other grammage which provides equal strength and performance can be used.
- Diameter and no. of holes should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

B. Partitions and Separator Plates

Material of Construction*	Corrugated Fibre Board
No. of Plies	3
Type of Flutes	B (Narrow)
Grammage (g/m ²)	150 / 150 / 150
Burst Strength (Kg/cm ²) (Minimum)	5.00

BANANA / ORANGE

DIRECT BULK PACK



Specification Details for Reinforcement Material

Pressure Sensitive Tape

- Material of Construction BOPP or PVC
(Biaxally Oriented Polypropylene or Poly Vinyl Chloride)
- Thickness 20 μ
- 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.



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Specifications developed by IIP for APEDA



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