



PACKAGING OF PETHA



AATMANIRBHAR BHARAT

**PM Formalisation of Micro Food Processing
Enterprises Scheme (PM FME Scheme)**



PETHA

- A popular Indian sweet of North India
- Especially famous in regions like Agra and Mathura, Meerut, Aligarh etc.
- Translucent, soft and chewy
- Eaten dry or dipped in sugar syrup (Chashni)
- Made from ash gourd.
- Many flavoured variants are available, e.g. *kesar petha*, *angoori petha* etc.





AVERAGE NUTRITIONAL COMPOSITION OF PETHA

Nutritional Information per 100g (Approx.)

- Energy 420.44 Kcal
- Carbohydrate 64.21 g
- Total Fat 15.96 g
- Protein 14.99 mg
- Cholestrol 0 mg



TYPE OF PACKAGING USED FOR PETHA

Primary Packaging

- Plastic Sheets
- Plastic Pouches
- Plastic Boxes

Secondary Packaging

- Paper
- Cardboard
- Corrugated Boxes



ADVANTAGES OF PACKAGING PETHA

- Provides physical protection
- Prevents from mechanical shock and compression
- Provides information transmission through labelling
- Encourage potential buyers to purchase the product
- Provide convenience for distribution, sales and handling
- Reduce the risk of pilferage

PACKAGING FOR DRY PETHA

- Translucent and soft candy like texture
- Varieties are plain dry petha, dry kesar petha etc.
- Plastic material is used for primary packaging
- Mainly wrapped in Polyethylene film
- Both LDPE and HDPE films can be used
- Maintains individuality of petha pieces





PACKAGING MATERIAL FOR DRY PETHA

- Polymer Films can be used:
 - either wrapped with pieces, or
 - lined with other packaging material
- Cardboard boxes are secondary packaging material
- Plain or lined with plastic films
- Provide mechanical strength
- Make handling and distribution easier





PACKAGING MATERIAL FOR WET PETHA

- Petha pieces are packed with sugar syrup
- Varieties include Angoori petha, Angoori kesar petha etc.
- Plastic pouches are the primary packaging materials
- HDPE and PP pouches are used
- Plastic laminated pouches can also be used
- Pouches are filled with sugar syrup and petha





PACKAGING MATERIAL FOR WET PETHA

- Air is removed before sealing of pouches
- Hermetically sealed pouches provide better Shelf Life
- Corrugated/duplex box are used for secondary packaging
- Provides safety and easy stacking
- Handling and distribution is easier



PACKAGING MATERIAL FOR SPECIAL PETHA

- Varieties include Chocolate Petha, Pan Petha etc.
- Transparent Plastic Boxes are used
- Made up of PVC / PET
- Thickness ranges from 0.5-2 mm
- Provides good display of product
- Fulfills safety aspects





CHARACTERISTICS OF PACKAGING MATERIAL

1. Low Density Polyethylene (LDPE)

- LDPE Melting point: 105 to 115°C
- Density of LDPE: 0.910–0.940 g/cm³
- Low cost polymer with good processability
- Good Transparency and easily pigmented
- Highly resistant to most solvent
- Odorless and Tasteless



ADVANTAGES OF LDPE

- Flexible and Light Weight
- Good Moisture Barrier Properties
- Less costly / Economic

DISADVANTAGES OF LDPE

- Susceptible to stress cracking
- Low strength, Stiffness
- High Gas permeability



2. HIGH DENSITY POLYETHYLENE (HDPE)

- Stronger intermolecular force and tensile strength
- HDPE Melting point: 120-140°C
- Density of HDPE: 0.93 to 0.97 g/cm³
- Higher tensile strength compared to other forms of polyethylene
- Very low water absorption



ADVANTAGES OF HDPE

- Low cost
- Good moisture barrier
- Excellent resistance to most solvents

DISADVANTAGES OF HDPE

- Poor Gas Barrier properties
- Occasional Loss of flavors
- Susceptible to Stress Cracking



3. POLYPROPYLENE (PP)

- PP melting point: 160 ° C
- Density of PP: 0.945 g/cm³
- Heat and chemical resistant
- Tough and rigid
- Stress crack resistant
- Resist oil and greases



ADVANTAGES OF PP

- Light weight
- Low cost
- Less Shrinkage

DISADVANTAGES OF PP

- Low impact strength
- Sharp melting point



4. POLYVINYL CHLORIDE (PVC)

- Linear polymer and thermoplastic in nature
- Melting point : 212 ° C
- Density : 1.38 g/cm³
- Good impact strength and waterproof
- Good dimensional stability at room temperature
- Retains odors and flavors



ADVANTAGES OF PVC

- Good moisture and vapor barrier properties
- Low cost/ Economic
- Good transparency

DISADVANTAGES OF PVC

- Limited stress cracking resistance
- Tends to degrade at high temperatures
- Corrosive when overheated

5. CORRUGATED BOXES

- Made up of biodegradable materials
- Have Three or more layers of liner board
- Have corrugated inner medium called fluting
- High compressive strength, resiliency & shock resistant
- High top to bottom compression strength
- Good crush resistant and stacking strength





ADVANTAGES OF CORRUGATED BOXES

- Light weight
- Very cheap packaging material
- Ecofriendly
- Excellent printing capability
- Provide cushioning to product
- Easy handling





PACKAGING REQUIREMENTS AS PER FSSAI

- Candied and crystallized fruits can be packed in,
 - polyethylene linings with suitable gauge
 - paper bags
 - cardboard boxes
 - glass jars or containers
 - other suitable approved material





PACKAGING REQUIREMENTS AS PER FSSAI

- Can also be packed in aseptic packaging material
- Packaging material should be food grade
- Should conform to the standards
- Package must be properly sealed
- Should be free from other extraneous matter
- Should contain no objectionable odor





LABELLING REQUIREMENTS AS PER FSSAI

GENERAL REQUIREMENTS

- Every pre-package should contain a label
- Label provides required information as per standards
- Label shall be in English or Hindi
- Contents shall be clear, unambiguous & prominent
- Contents shall be conspicuous, indelible and readily legible
- No false, deceptive or misleading labels should be used



LABELLING REQUIREMENTS AS PER FSSAI

GENERAL REQUIREMENTS

- Label shall not be separated from package
- No conflict of label information with the requirements
- License number shall be displayed on the principal display panel
- Label contents should be clearly understood



LABELLING REQUIREMENTS AS PER FSSAI

LABELLING OF PRE-PACKAGED FOODS

- The Name of Food
- List of ingredients
- Nutritional Information
- Declaration regarding non-veg
- Declaration regarding veg
- Declaration regarding Food Additives





LABELLING REQUIREMENTS AS PER FSSAI

LABELLING OF PRE-PACKAGED FOODS

- Net Quantity
- Lot/Code/Batch Identification
- Date of Manufacturing or Packing
- Best Before or Used by Date
- Country of origin for imported foods
- Instructions for Use





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