

# PACKAGING OF NOODLES



**AATMANIRBHAR BHARAT**

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

## PACKAGING

### Shelf Life of Product:

- Shelf life is the amount of time a product can be processed without being unsafe for use, consumption, or sale.
- Given a choice of products with the same nutritional content and taste, one tends to opt for the product with more shelf life.
- Wheat flour noodles are commonly manufactured by sheeting and rolling, while other forms are usually produced by extrusion or batter cooking techniques.

- In hydrogenated vegetable oil, modern instant noodles are steamed and fried, have a fat content of about 20 percent, added salt and edible gum and a shelf life of 6-8 months.
- Instant noodles are fast cooking, requiring boiling or rehydration in boiling water for 2-3 minutes.
- Noodles can be manufactured in various sizes, hollows and solids.
- During re-hydration, the flavour and taste of the instant noodle is produced by adding a tastemaker of the various flavours.

- The quality of the product is also established with the type of process and technology further improves the quality of the product.
- The addition of anti-microbial packaging adds value to the product and thus the quality.

## **Proper Storage**

- When food products are not properly stored, they are spoiled by other food products that are bad for health.
- As germs begin to grow on it, food products stored for a long time get spoiled.
- Spoilage is a phase in which food goods deteriorate to the point that human food is not edible.
- "In most cases it has been seen that these Maida-based instant noodles take a toll on the digestive process.
- Its remnants may reach the appendix area of the body and trigger infection."

## PACKAGING

### ➤ The bad fats

- Sadly, most processed foods, including saturated fatty acids or trans fats, are filled with not-so-good fats.
- The fats that are safe for you are both monounsaturated fatty acids and polyunsaturated fatty acids.
- Instant noodles have saturated fats that can increase the amount of cholesterol in the blood if eaten excessively.

- Food and water can be germ-infected. Germs are borne by bees.
- They pass these germs on to our food while they are sitting on our food.
- There are various causes, such as bacteria, mould, yeast, moisture, light, temperature, and chemical reaction, that are responsible for food spoilage.

## PACKAGING

### Noodles Packaging:

- The packaging material- Both practical and marketing specifications.
- In order to ensure the consistency of the noodles shape and size during handling, transport, storage, and delivery.
- Packaging Specifications:
  - To protect the product from spillage and spoilage.
  - To provide protection against atmospheric factors such as light, heat, humidity, and oxygen.
  - The selected packaging materials should have high water vapour and oxygen barriers.



- The packaging material should have a high barrier property to prevent aroma/flavour losses and in gross of external odour.
- Therefore, the wrapping material should be resistant to grease and oil and be compliant with the commodity.
- The packaging content should, in addition to the above practical specifications, have good machinability, printability and be readily available and disposable.

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## Characteristics of packaging material

The material selected must have the following characteristics:

- Must meet tamper-resistance requirements
- Must not reactive with the product
- They must protect the preparation from environmental conditions
- Must be non-toxic
- Must not impart odour/taste to the product
- Must be FDA approved.

# TYPES OF PACKAGING

## Fundament classification:

Packaging refers to the act of designing and producing the container or wrapper of a product. It is one of the most important parts of marketing.

### ➤ **Primary packaging:**

Primary packaging is packaging which is in close association with the product itself and is often referred to as a consumer unit. The main purpose of the primary packaging is to contain, protect and/or conserve the final product, in particular against contamination.



➤ **Secondary Packaging:**

Secondary packaging is the outer packaging of the main packaging, which connects packages and further covers or marks the prescription component.

Different type of Secondary Packaging materials

- ▶ Paper and boards
- ▶ Cartons
- ▶ Corrugated fiberboard



➤ **Tertiary Packaging:**

Tertiary packaging is used for the handling, transportation, and delivery of bulk products.



## Types of Primary Packaging

### ✓ **Bag-packed instant noodles-**

The first generation of instant noodles was packed in small bags. The resulting product is very small, light, and easy to carry around. This method, however, requires the consumer to inconveniently travel with a bowl in which to assemble the ingredients to make the food.

✓ **Bowl-packed instant noodles-**

- The bowl-packed instant noodles was made with polystyrene.
- Its high cost made the retail price 3 times higher than that of the bag-style instant noodles.



## Essentials

- ✓ Shelf-life duration, i.e. the degree of protection required by the commodity against pick-up of moisture, preservation of aroma retention, decolouration, etc (in case taste maker is added)
- ✓ During packaging, transportation, and delivery, environmental conditions.
- ✓ Business type/sector
- ✓ Preferences for users
- ✓ Printability and appeal of aesthetics

**The package types generally used as consumer packs are:**

- ✓ Plastic cups of various sizes and shapes with labels and provided with metal or plastic caps.
- ✓ The plastic lids have added inbuilt features of tamper evidence, dispensing, grinding, etc.
- ✓ Printed tinfoil container with/without dispensing systems.

- ✓ Printed tinsplate container with/without dispensing systems.
- ✓ Plastic containers with plugs and caps with dispensing and tamper evidence features.
- ✓ Printed flexible pouches – pillow pouch, gusseted pouch, stand-up pouch.
- ✓ Lined cartons

## MATERIAL OF PACKAGING

- The most common choice of packaging medium is plastic (generally flexible).
- It provides the required protection and preservation, grease resistance, physical strength, machinability, and printability.
- Polythene, polypropylene, laminated pouches, PVC wrapped trays and plastic jars were the various packaging materials used.
- In terms of preserving consistency during the storage era, the suitability and adoptability of these packaging materials have been examined.

## Plastic-based Packaging Materials

### Polyethylene (PE)

- It is considered to be the backbone of packaging films.
- Polyethylene with its low water vapor transmission is of definite interest.
- Polyethylene films are fairly free of plasticizers and other additives and are quite extensively used as a part of lamination.
- Its ability to heat seal increases its value.
- A copolymer of polyethylene and polyvinyl alcohol and EVOH has outstanding gas barrier properties especially when dry.

## Polypropylene

- Polypropylene films have better clarity than polyethylene and enjoy superior machinability due to stiffness.
- Lack of good saleability has been a problem; however, PVDC and vinyl coating have been used to overcome this problem.
- Some varieties of PP have been specially developed for twist-wrap applications as they have the ability to lock in position after twisting.

## **Polyesters (PET) and Polyamide (PA)**

- Polyethylene terephthalate film has high tensile strength, gloss, and stiffness as well as puncture resistance.
- It has moderate WVTR but is a good barrier to volatiles and gases.
- To provide heat seal property, PET is normally laminated to other substrates.
- Nylons or polyamides are similar to PET but have high WVTR.

## Metallised Films

- When polymeric films are metalized there is an improvement in their barrier properties.
- Metallization is also used for decorative purposes and aesthetics.
- The films, which are used for metallization, are PVC, PET, PP, and polyamides.





# PM FORMALISATION OF MICRO FOOD PROCESSING ENTERPRISES SCHEME (PMFME)

**TOTAL OUTLAY: RS.10,000 CRORE**

- **2,00,000** FPOs/SHGs/Cooperatives and working micro enterprises to be directly benefitted
- Expected to generate **9 lakh** skilled and semi-skilled jobs
- To be implemented over a **5-yr period from 2020-21 to 2024-25**
- Cluster approach
- Focus on Perishables.



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