

# NEW ERA OF INDIAN READY TO EAT FOOD (RETORT FOOD – Having shelf life up to 18 months)

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## **BRIEF**

India has made lot of progress in agriculture & food sectors since independence in terms of growth in output, yields and processing. It has gone through a green revolution, a white revolution, a yellow revolution and a blue revolution. Today, India is the largest producer of milk, fruits, cashew nuts, coconuts and tea in the world, the second largest producer of wheat, vegetables, sugar and fish and the third largest producer of tobacco and rice.

Now the time is to provide better food processing & its marketing infrastructure for Indian industries to serve good quality & safest processed food like ready to eat food. It is opening a new window in world scenario as far as taste & acceptance is concerned. Therefore, Indian Government is providing more infrastructure for this sector. Excise duty is now ZERO % on RTE and 100 % tax deduction for the first 10 years for new units. This allows manufactures to bring down their prices & spreads its flavors to the world.

The retort processed foods do not require rehydration or cooking and can be consumed straight from the pouch with or without pre-warming, depending upon the requirement of the users and the weather conditions. These foods meet the specific needs of convenience, nutritional adequacy, shelf stability, storage, distribution to the centers and have become very popular after the Year 2002. Some of the mouth-watering dishes in retort pouches include *sooji halwa, upma, chicken curry, mutton curry, fish curry, chicken madras, chicken kurma, rajma masala, palak paneer, dal makhnil, mutter paneer, potato-peas, mutter mushroom, vegetable*

*pulav chicken pulav, and mutton pulav, etc.*

The pioneer introduction of retorting technology has made the sale of 'Ready-to-Eat' food products commercially viable with great taste.

## **CONCEPT**

- Ready to Eat Meals like already cooked or prepared lunch & dinner are relatively new products which came in market only a few years back and are now sold through retail general stores in especially made sealed aluminum laminates.
- The retorting or sterilization process ensures the stability of the Ready-to-Eat foods in retort pouches, on the shelf and at room temperature. The application of sterilization technology completely destroys all potentially harmful micro-organisms, thereby making sure that the food product has a very long shelf life of over 12 months and needed no refrigeration.
- When customer needs to eat, the food item pouch is either put in microwave oven to warm it or keep in heated water for a few minutes and then serve to eat.
- Such ready to eat meals have been especially given to soldiers in army of many countries who require carrying their rations while on war front or while located far away from their main unit.
- The advertisements like, "Hungry Kyaa" are adding zest to the market by popularizing such food items which are pre-cooked and free from any preservative, and yet have a long shelf life of over 12-months. These food items are normally selling in pouches, well packed in cardboard printed boxes of

small book size and carry about 300 grams of cooked food at a price of about Rs. 40 to 200 in foreign market depending upon the type of dish packed. One packet of vegetable dish is normally sufficient for one meal for three persons and therefore falls in economic zone of consumer's preferences.

## **WHY READY TO EAT FOOD**

- Globalization of Indian food and its culture are the core factors for popularization of ready to eat foods.
- Main motivation for these ready to eat foods is fast growing foreign market.
- Retail outlet culture is now growing rapidly in India.
- Shelf life of these foods are at least 12-18 months.
- Quality, Taste and Flavor of these foods remains as good as fresh up to the expiry date.
- Women wanting to spend more time out of the kitchen.
- More working bachelors staying away from homes.
  
- Cost effective in comparison to the Indian cuisine served by the restaurants in foreign countries.

## **TYPES OF READY TO EAT FOOD**

### **Veg Food**

Alloo Matar  
Palak paneer  
Sarso Ka Saag  
Chana Masala  
Kadi Pakora  
Cheese Tomato  
Dal Makhani  
Rajma Masala

### **Non Veg Food**

Chicken Curry  
Butter Chicken  
Karahi Chicken  
Mughalai Chicken  
Mutton Masala  
Mutton Korma  
Karahi Mutton  
Mutton Biryani

## **Deserts**

Gajar Ka Haluaa / Sugi Ka Haluaa / Milk Kheer

### **PLAYERS IN READY TO EAT FOOD**

- **MTR**
- **Kohinoor Foods**
- **ITC**
- **Haldiram**
- **Tasty Bites**

### **RETORT & ITS PACKAGING**

The water RETORT is an equipment or vessel or sterilization module through which steam (at 130 degree centigrade for 25 minutes) is applied on food products packed in retort pouches.

The retorts use water or steam/air combination as processing medium to heat the container/packages. Compressed air or additional steam is introduced during the processing cycle to provide the overpressure (any pressure supplied to the retort in excess of that which can be normally achieved under steam at any given retort temperature). Overpressure is important in preventing package damage or loss of seal integrity (like bursting), during the heating process.

Retort pouches is a flexible packaging material that basically consist of laminates or bounded layers of different packaging films of Polyester-Nylon-Aluminium-polypropylene that can withstand high process temperature & pressure.

Their most important feature is that they are made of heat-resistant plastics unlike the usual flexible pouches. This makes the retort pouches unique which are suitable for the processing of food contents at temperatures around 120 degrees Celsius. That is the kind of ambient temperature prevalent in the thermal sterilization of foods.

There is lesser time to spend in cooking food themselves and so ready to eat foods are preferred. To get the food of different cultures, taste etc, it is important that food has good shelf life so that it can be made available at far off places too and then can be conveniently consumed also.

### **ADVANTAGES OF RETORT PACKAGING**

- Pouch laminates permits less chance to overcook during the retorting thus products having better color, texture & less nutrients loss.
- It requires less energy for sterilization.
- It requires less disposal & storage space.
- Low oxygen & moisture permeability.
- Shelf stable for longer time & requires no refrigeration.
- Sun light barrier, light weight, easy to open.

### **MARKET & ITS GROWTH**

- The popularity of ready to eat packed food now is no longer marks a special occasion. Peoples want value for time, money in terms of quality and variety.
- The food processing industry is one of the largest industries in India and it is the ranked fifth in terms of Production, Consumption, Export & Expected growth.

- Processed food market in India accounts for 32% that is Rs. 1280 billion or 29.4 billion US \$ in a total estimated market of Rs. 3990 billion or 91.66 US \$.
- Euromonitor International, a market research company says that amount of money Indian spend on ready to eat snacks & food is 5 billion US \$ in a year while on abroad Indian or Indian subcontinents spend 30 billion US \$ in a year.
- Ready to eat packaged food industry is over Rs. 4000 crore or 1 billion US \$ and it is growing at the rate of 20 % per annum.
- Ready to eat food market is developing specifically in UK, USA, Canada, Gulf & South Asian Countries with the growth rate of over 150 % per annum.

## **FREQUENTLY ASKED QUESTIONS**

### **What is retort packaging?**

- Retort packaging is a self stable flexible package

### **What is the shelf life of retort food?**

- The shelf life of a retort package is a year plus.

### **What are the shipping advantages?**

- A retort package will not break or dent and weigh less.

### **Where do you display the package in the retail store?**

- You can display at room temperature at any corner of the retail store

### **What are some of the main reasons, a packager of consumer products would like to go from a conventional package material to a flexible retort pouch?**

- The package provides a flat surface for graphics and text, needs no refrigeration and is microwave compatible.

**What's the difference between foil and non-foil retort structures?**

- Non-foil retort packaging can be put in the micro wave.

**What about taste of products in a retort package?**

- People say that products packaged with retort material taste fresher and maintain a more natural flavor.

**What about shelf appeal?**

- Retort pouches are more space efficient and provide a larger surface for graphics and text.

**What kind of food products can be packed in retort packaging ?**

- All kind of veg & Non- veg food products

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