FOODPACK LAB2 & ITC

ITC Packaging & Printing Business

DIRECT FILLING IN CARTONS

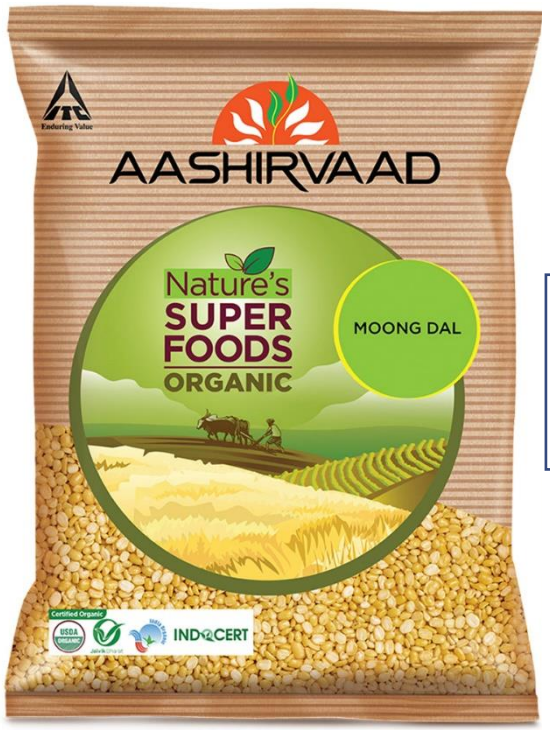
- Title : Direct Filling in Carton for Food Products.
- Project Brief :
  - Plastic replacement approach and market is having such solutions, However the concern is the hermetic sealing and barrier requirements.
  - Example : Direct filling of Detergents (video in next slide)
- Properties Expected:
- Barrier Properties – WVTR & OTR
- Sealing – Hermetic
- Mechanical strength
- Cost effective
- Compostable & Sustainable
- Retention of Nitrogen Flushing
- Retortable/ Microwavable.

Application products:

- Breakfast Cereals
- Infant Foods
- Ready to Cook / Ready to Eat Foods.
- Beverage Segment (Tea/ Coffee)

Direct Fill Packaging Cartons

Goal



Transition from film to direct carton board

Pic – for reference only

Products Preferred to Start with

1) Dal / lentils – A type of dried pulses

Current Package Structure – Flexible / **Film** Packaging: PET + Natural PE

Products Preferred to Start with

2) Soya Chunks – Byproducts left after extraction of soybean oil

Current Package Structure – Flexible / Film Packaging: PET + Natural PE

Products Preferred to Start with

3) Tea Powders

Current Package Structure 1 – METPET + Paper + PE

Production Line

Below enclosed are the three widely used product filling production line

- **Cartonator**

  Link : https://www.youtube.com/watch?v=lipB44kxXy8

- **Vertical Form Fill Seal Machine**

  Link : https://www.youtube.com/watch?v=9sjs0VR9DYY

- **Horizontal Form Fill Seal Machine**

  Link : https://www.youtube.com/watch?v=ikWbyuK_fpQ

Package Characterization

Package Substrate – Paper Board (Additional compostable barrier coatings may be provided over paperboard for enhancing package properties depending on product nature)

Package Profile – We are open to innovative shapes and structures of the package

Package Size 1 – For filling 500g of product

Package Size 2 – For filling 1kg of product

Thank You