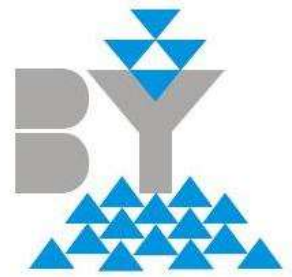




Flexible Plastic Packaging Part Four Applications - Innovations

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Introduction

- In the current market scenario, packaging has started playing a very important role in the way a company's products and services are conveyed to the consumer.
- Apart from the primary role of protecting the contents, novel packaging systems are being adopted for better shelf appeal and to attract the consumer's attention among the numerous brands fighting for shelf space



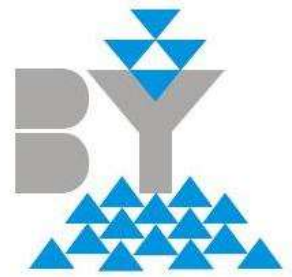
Introduction

Retailing has become a very profitable business especially large scale supermarkets which house numerous popular as well as the lesser known brands under the same roof.

These have in turn created demand for neatly packed and branded products in consumer packs ranging from 500grams to 10Kgs requiring excellent aesthetics in the fight for shelf space.

Emerging Trends

New forms of Packaging



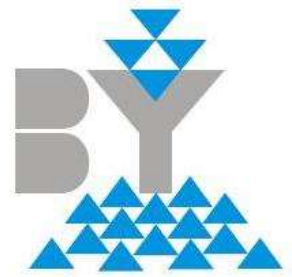
Small Packs



Rigid packaging is giving way to flexible packaging.

Emerging Trends

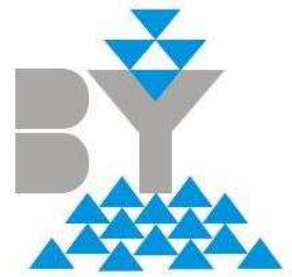
New forms of Packaging



Large Packs

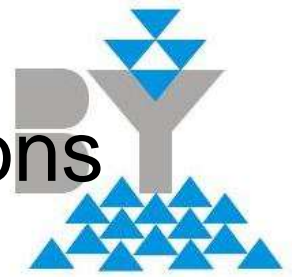


Rigid packaging is giving way to flexible packaging



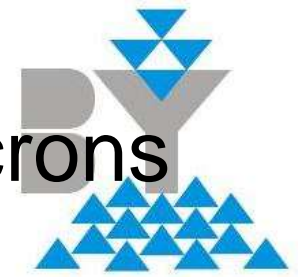
- Essential commodities like Milk, Edible oil, Synthetic Detergents, salt, Wheat flour, Rice, Sugar generate huge volumes for the flexible packaging industry.
- The key constituent of a flexible packaging system is the inner sealant layer which in most cases consists of a multilayer film. Thus multilayer films and their converted products like laminates are an integral part of the flexible packaging industry.

Material selection :Edible oil :100 microns Case Study



Key Property Requirement

- Good Drop Impact
- Excellent Seal through contamination
- Excellent Seal Strength
- Very Good Barrier Properties



Material selection :Edible oil :100 microns Case Study

5 Layer Structure

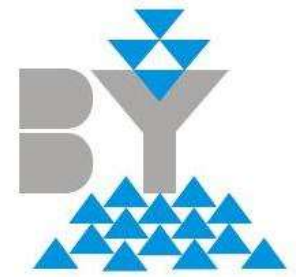
1. LL/LD
2. Tie Layer
3. Nylon
4. Tie Layer
5. LL/LD

3 Months Shelf Life

3 Layer Structure

1. 80% o-LLDPE/ 20% LD
2. 40%HDPE/ 40% o-LLDPE/
15% LDPE/ Color MB
3. 80% o-LLDPE/ 20% LD

1 Month Shelf Life



New Innovations



Toothpaste Sachets

Low unit pack for toothpaste which provides better value for consumers

Results in significantly lower packaging material as compared to conventional tube and carton packaging

- Developed by Hindustan Unilever Ltd.



Retortable Pouch

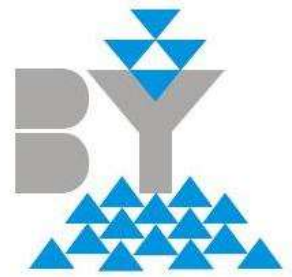


Nestle developed a pouch for dairy based products which are used as a topping for pastas, salads, etc • Spout fitment is top sealed with Al foil to prevent leakage

Retortable pouch which after filling & sealing is retorted under controlled conditions to increase the shelf life of product



Hanger Fitted Garment Bag

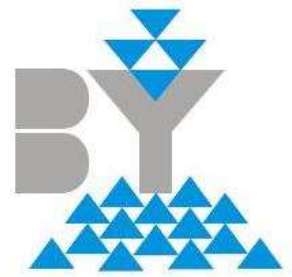


An LDPE bag made and printed in a manner as if it is made of PVC.

A replacement of material with no change on aesthetic appeal.

- The pack provides brand identity and maintains the classic feel



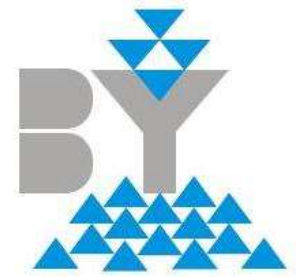


Water Pouch

- A drinking water pouch providing unique drinking experience specially designed with sustainability and environmental friendliness.
 - Once the suction stops, the liquid no longer flows through the spout & the spout self-seals itself



Press Fit Handle Fitted Bag



100% recyclable PE based bag for a product “Auto Sock”, popular in Europe for automobile tyres.

- Retain the shape of the product inside and provides ease of handling while the socks are removed and put back in the same bag again while not in use



Shampoo Laminate



The pack is reverse printed on chemically coated PET/EAA-PE Extrusion lamination/Matt finish met PET/m-LL

The pack has excellent stringing property for easy dispersing. • Pearl finish with inks & matt appeal with substrate



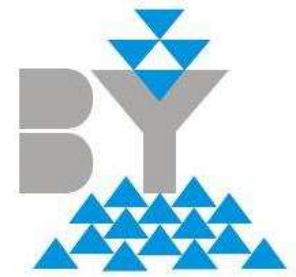
Laminate for Snacks/Biscuits



- A pioneering effort of printing on Siox coated PET film.
- A laminate for Pure magic choc hazelnut biscuits having product compatible structure with excellent bond strength
- Featuring product visibility, no moisture & aroma loss and excellent printability



Stand up Pouch for Tea Bags



The pouch has matt & gloss i.e. dual effect. • Stand up pouch for shelf appeal

Zip lock which is convenient for consumers, provides excellent aroma barrier



Easy Tear Pack for Detergent



CPET/easy tear white

opaque PE structure for sunlight
2 in 1 detergent powder.

Modified PE for easy tear property

Transport worthy, excellent
shelf appeal



Anti Fog - Chicken Bags



Specially designed bags for packaging of freshly made chicken nuggets.

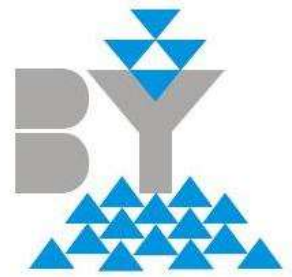
Special anti fog additive doesn't allow smearing/fogging of film when hot chicken is filled in the pouch

This also keeps the pack clean, clear and hygienic

Zipper and “D” punch is there for consumer convenience & usage.



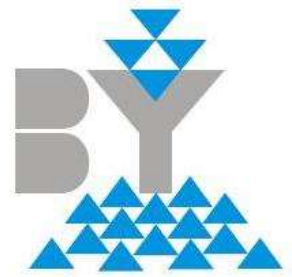
Vodka Sachets



This is a profile pouch with a structure of PET/Nylon/Poly and high performance adhesives are used to prevent delamination even after keeping for a longer period. • This is a one time use pack and is made more convenient with a laser-cut for easy opening.



Pouch with Easy Dispensing



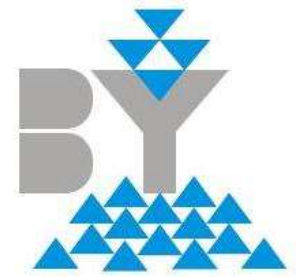
Pouch with special punch on top which allows easy dispensing at the super markets

Provided with zipper for multiple usage, easy

opening and ensure product freshness.



Poly - Poly Laminate



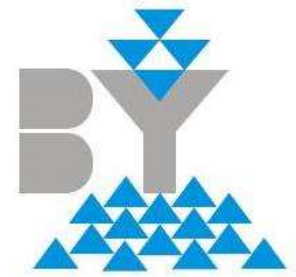
Specially designed bag with Poly- Poly laminate having better shelf appeal due to standing feature at the bottom

The laminate composition of poly- poly gives advantage over the conventional laminate bag with PET/Poly structure.

Also has a better feel as the laminate is much more pliable



Sauce Pouch



The Pouch presents consumers with a highly appealing and functional package for Royco's line of heat-and-serve sauces and gravies.

The shaped retortable pouch protects its contents with outstanding barrier properties Offers a cost-effective alternative to rigid packaging, and functions beautifully during the heating and serving process — adding to its appeal and its consumer convenience. • The pouch is an outstanding example of how the power of packaging adds value to a product.



Hot and Handy Chicken Pouch



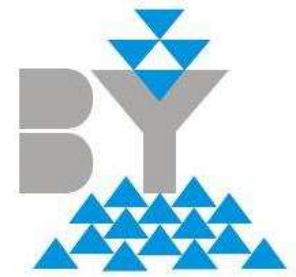
A flexible all-in-one package that is designed to aid consumers by giving them value-added features

Pack offers a built-in-handle for easy carrying, a resealable zipper for reclosing and a slim profile that gives an eye appeal

The pouch is also microwaveable and leak resistant.



Stick Pack for Tea



The stick pack has a built-in mechanical filter system that restricts the bitter components within the pod while releasing the liquor, resulting in a perfectly brewed tea serving.

- Just drop the stick pack into hot water and the unique perforation holes will give the optimum brewing performance.

This is a modern and fresh design for the modern tea consumer as it eliminates the necessity of a teaspoon and minimizes dripping.

The resulting package provides excellent performance concerning extraction behavior and is convenient for on-the-go consumers



Plastic Reclosable Dog Food Bag



Beautiful eye catching graphics, strength for protection during distribution and consumer convenience features to encourage repeat purchases

This new development from Exopack is an innovative alternative to standard multiwall pinch bags, which require minimal filling line modifications.

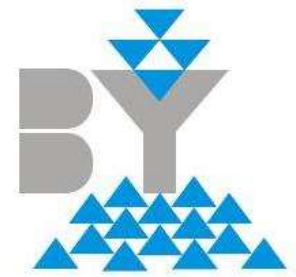


Gusseted Pouch for Tea



- A new design has been created as the package is made from five different webs where the front and back, and the two side gussets are registered
- Due to this reason, the product stands out on the shelf.
- It is provided with a slider zipper for multi-use, easy opening and ensures product freshness.
- This product has met high market acceptance as this format can be adjusted for a variety of products, including the packaging of rice, snack foods, high count biscuits, tea and coffee.





Thank You