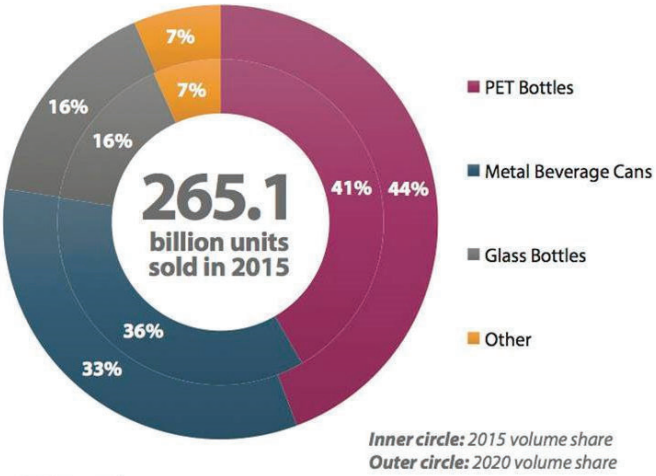
Easy Open Application in Flexible Packaging: Shrinkable Film Used in Pet Bottles

PET Performance Stays Strong in Global Packaging Picture

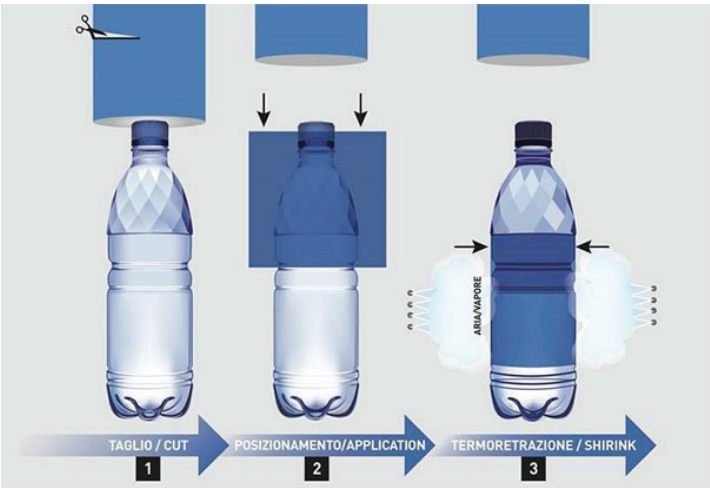
Volume Share of Beverage Packaging in North America



Source: PMMI Business Intelligence

Hot Shrinkable on Pet Bottle: Production Process

Hot shrinkable wrap, also referred to as shrink film or shrink wrap, is a versatile polymer material used for the packaging of finished goods. Heat is applied to the film – by either a conveyor heat tunnel or an electric or gas heat gun – which catalyzes the film to shrink tightly around the item placed within. This process results in a clear, durable barrier of protection around the product.



To protect and secure products for retail and shipping environments, there are three main types of films used in shrink wrapping: PVC, polyolefin and polyethylene. Each of these materials features has different capabilities and characteristics that make them suitable for specific applications.

Shrink films can be formed into flattened roll-stock, bags, overwrap, banding and tubing, and they can add a form of tamper-resistant protection to packaged goods. In terms of packaging, PVC is applied to both rigid constructs (like blister and clamshell packaging) and flexible ones (like shrink film and bagging).

Conditional Interim Endorsement for Perforated, Tear-Off Full Body Sleeves for Personal and Household Care Pet Bottles

The use of sleeves on PET bottles may lead to errors in identification and reduction of separation of PET bottles by the near infrared (NIR) and optical detectors used in waste plastic packaging sorting and recovery plants. Full body sleeves especially present a serious challenge in the identification of PET and hence problems in sorting and reduction during recovery processes.

To ensure efficient PET bottle identification and separation by color, sleeves should not cover more than 70% of the surface of 500 ml PET bottles and above; and not more than 50% for PET bottles of less than 500 ml. A sleeve that covers more than the recommended surface area is considered a full body sleeve.

To overcome the growing issue with full-body sleeves on PET bottles, a combination of actions by both industry and by consumers are required, for example, the use of sleeve perforations. The addition of twin perforations on the side of the sleeve allows consumers to remove the sleeve from the bottle before placing both the sleeve and the bottle into collection bins or bags. Clear instructions for consumers will encourage them to remove the sleeve thus facilitating accurate identification and sorting of the sleeveless PET bottle.

Based on the above considerations, the technical committee of the European PET Bottle Platform (EBPB) has awarded a temporary endorsement to full body sleeves used on personal and household care bottles for a period of three years, provided the following conditions (we provide the 3 most important):

- The sleeve is equipped with double perforation which are designed to be easily identified and removed by consumers.
- The packaging Industry develops a standardized perforation concept, both in terms of functionality (easy tearing off operation) and design (immediate recognition), regardless of the type and content of the PET bottle.
- PET bottles with perforated sleeves must carry a standardized message for the consumer asking them to remove the sleeve from the bottle, and then placing both the bottle and the sleeve in the collection bin or bag for recycling.

The three-year period will be used to assess the packaging industry commitment in adopting the solution and to measure consumer engagement in removing the sleeves. This information will inform any decision to make the endorsement permanent.

The Association of Postconsumer Plastic Recyclers (APR), the trade association of companies that recycle post-consumer plastics in North America, has issued a new guidance document to deal with the growing issue of full-body sleeve labels on PET bottles. Similar to guide-line proposed by technical committee of the European PET Bottle Platform (EBPB)
Plasticsrecycling.org

SEI Laser Packmaster Web Direction: A Unique Solution for Tear-Off Full Body Pet Sleeves

Laser technology is well-known for its speed and flexibility on the scoring or dashed line.

That's not all: laser technology, which can be used to cut, score, drill and perforate a variety of substrates, is an ingenious solution for a huge range of applications.

Laser technology is very flexible and allows you a significant cost reduction in comparison to traditional technology, such as die-cutting tools or cutting blades. With one machine, you can code, mark, cut, score, drill and perforate.