

DuPont Liquid Packaging Systems

Aseptic Packaging

Frequently Asked Questions

Q: What is aseptic processing and packaging?

Aseptic processing sterilizes the food product by destroying the harmful bacteria and pathogenic microorganisms through a tightly controlled thermal process. DuPont Liquid Packaging Systems has designed filling equipment that provides a sterile environment for the product to be introduced into the packaging material. The packaging film barrier properties protect the sterile product from outside contamination. This results in a packaged product that is shelf stable and does not require refrigeration.

Q: Why should I care about aseptic processing?

Aseptic food processing and packaging are tightly regulated by the food and Drug Administration (FDA) to ensure a safe and secure process from start to finish. Other technologies, such as hot-fill, can also provide shelf stability but often require added preservatives or ingredients to modify or raise the acidity of the product. Aseptic processing on the other hand, because of more precise temperature treatment of the product, results in a more repeatable flavor profile.

Q: What are the benefits of aseptic processing?

- Food safety
- Shelf stability independent of ingredients
- Ability to process thermally sensitive products
- More robust process
- Thermally process a product independent of package size
- Produce a product of improved sensory quality
- Improved nutrient retention
- More precise control over process
- Flexible use of containers varying in design/materials
- Product does not require refrigeration, resulting in energy savings in storage

Q: Don't all milk or dairy-based products need refrigeration?

The need for refrigeration is determined by the method used to process and package the milk or dairy-based product. When you use aseptic flexible packaging, combined with aseptic processing, milk and other dairy-based products can be shipped and stored non-refrigerated for a period of up to one year. Once the pouch has been opened for use, any remaining product should be treated like any other dairy-based food and stored in the refrigerator.

Q: Why don't aseptically packaged products require refrigeration?

Refrigeration serves to slow or prevent the growth of bacteria and microorganisms. Aseptic processing sterilizes the food product by destroying the harmful bacteria and pathogenic microorganisms through a tightly controlled thermal process. By combining the sterile product with the sterile packaging in a sterile environment, the end result is a shelf-stable product that requires no refrigeration.

Q: How is aseptic pouch packaging accepted in the food service industry?

The aseptic pouch is well accepted in foodservice applications worldwide as a safe and high-quality packaging option that has been present in the U.S. market for more than 15 years. Technological advancements in aseptic pouch packaging has created new interest and presented new opportunities to the foodservice industry for a wide variety of applications.

Q: Does aseptic pouch packaging require any additives to the product to ensure shelf stability?

No. Unlike hot-fill or processed products where additives and other ingredients are frequently needed to provide shelf stability, the aseptic packaging process does not. Our complete liquid packaging system maintains the integrity of the food or liquid from the point that it is dispensed into the aseptic packaging from the filling equipment, through to final packaging. The film barrier property of the final packaging protects the product from outside contamination. The impact on the product is improved flavour without preservatives, lower salt content and a more home-made taste.

Q: Which is more cost effective, flexible aseptic or hot-fill processing and packaging?

Aseptic flexible packaging is more cost effective than hot-fill packaging when all these benefits are considered:

- Product safety
- Few packaging materials
- Maximizing of storage space
- Elimination of refrigeration
- Enhanced shelf life
- Less waste material
- More product per case to reduce shipping costs
- Shelf stability without adding special ingredients or additives
- Freedom of product formulation

Q: Do aseptic pouches require special care in handling?

The DuPont Liquid Packaging Systems aseptic pouch is a durable package formed with strong film construction. The shipping case design contributes to protecting the pouches during shipping and handling. The flexibility of the pouches allow for a tight packing pattern and no need for refrigeration. The result is a cost savings and storage efficiencies for the entire distribution channel.

Q: How does a long shelf life contribute to the cost effectiveness of aseptic packaging?

Longer shelf life with DuPont Liquid Packaging Systems aseptic packaging minimizes waste. More products can be stocked without the worry of spoilage, and lost sales are avoided due to stock-outs. Everyone in the distribution channel benefits from longer product shelf life.



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