

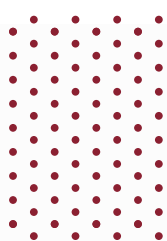
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THE TOTAL CO-INJECTION SOLUTION





MILACRON[®]

*The World's Leading Brands
use Milacron Co-injection*



THE TOTAL CO-INJECTION SOLUTION

“Klear Can is not only a revolutionary milestone in food canning technology, it also far surpasses previous types of see-through cans”

Russell Bennett, Director of Sales and Marketing, Milacron, Co-Injection Technology

Co-injection Evolves Packaging Possibilities.

Milacron is the world's largest supplier of turnkey co-injection systems to the plastics and packaging industries. Our multi-layer packaging technology is designed to meet the plastics industry's need for a successful high barrier technology in a robust multi-layer plastic preform or closure, delivered with the same high-volume production efficiencies and cycle times as a monolayer plastic preforms or containers without barriers.



In fact, our three-layer approach has become a global standard in heightened quality and strength.

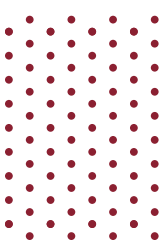
'The World's Leading Brands Use Milacron Co-injection' – the world's largest food and beverage companies use multi-layer PET and PP containers produced with Milacron Co-injection technology.



Milacron Co-injection technology can be applied to production of PET blow molded containers, PP blow molded containers, thin wall containers, closures and medical parts.

Most recently Milacron Co-injection has developed the Klear Can which is a revolutionary NEW option for food packaging. **The Klear Can is an alternate to old fashioned metal cans that provides more than 2 year shelf-life and the ability to brand owners to show quality of product to consumers.**





Company Overview

Milacron Co-injection is the world's leading supplier of innovative multi-layer packaging systems for the plastics container industry.

A pioneer in the industry, Milacron Co-injection essentially created the worldwide multi-layer rigid plastic packaging market by developing and patenting its proprietary molding technology in the 1990's. The world's leading global packaging companies were soon using Milacron Co-injection production systems for a wide variety of multi-layer plastic containers. What began as an idea for Milacron Co-injection's founders has become the #1 barrier packaging technology in the world today.



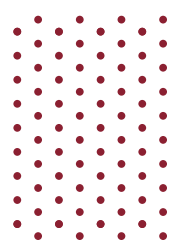
From its main location in Ipswich, Massachusetts USA, Milacron Co-injection provides complete, turnkey solutions to its customers – from preform and container design to shipment of a fully tested, optimized multi-layer molding system. Milacron Co-injection manages the entire project, including in-plant start-up services, customer training and continued technical support. Milacron Co-injection is a lean, highly efficient company that focuses all of its efforts on ensuring its customers' success.



Multi-layer rigid plastic containers produced with Milacron Co-injection technology offer important advantages over traditional packaging, including:

- Sustainability
- Product freshness and longer shelf life
- Attractive design options
- Significant cost savings





*Maximizing the shelf-life of sparkling
beverages, beer, juice, tea and food
with high-barrier multi-layer containers*



Milacron Co-injection has perfected the art of producing multi-layer preforms for PET and PP containers. The advantages of Milacron Co-injection high barrier, multi-layer containers are numerous and include:

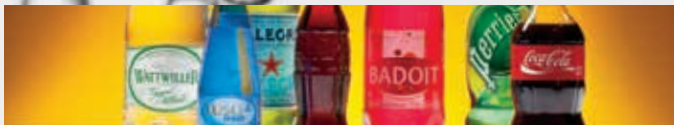
Sustainability— Milacron Co-injection multi-layer plastic containers are 100% recyclable – but that’s only part of the story. These containers are among the most eco-friendly packaging products available today. They require less energy consumption per container to produce, and have a smaller overall carbon footprint per container than glass and other materials. Lightweighting technology allows production of containers with even less plastic material used.

Product freshness and longer shelf life— Milacron Co-injection’s three-layer technology combines PET or PP with the latest barrier and oxygen scavenging resins. This results in high barrier, multi-layer plastic containers that preserve freshness and extend food and beverage shelf life – from 2x to 30x better than monolayer containers. They significantly reduce the ingress of oxygen and the egress of carbon dioxide, factors that traditionally limited the use of plastic containers for sensitive food and beverage products such as beer, tomato-based sauces, hot teas, carbonated soft drinks, and many others.

Attractive design options—All of the same design advantages available with monolayer plastics are available with Milacron Co-injection multi-layer technology. This provides designers with almost limitless options for creating aesthetic packages that are simply not possible with glass or metal.

Significant cost savings— The lower part weight and lower production cost of plastic parts made with Milacron Co-injection technology offer a significant economic advantage over metal and glass.





THE TOTAL CO-INJECTION SOLUTION



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*Expanding Multi-Layer
Technology Solutions for Your Products—
Now and in the Future*

The use of Milacron Co-injection high-barrier, multilayer technology is constantly expanding into new applications and markets.

Thin-wall Containers

Net shape molded polypropylene containers produced with Milacron Co-injection multilayer technology provide significant advantages over metal, glass, and thermoformed packages. Ideal for retortable food applications including fruits and vegetables, pet foods, soups and stews, fish, baby food and others, these containers provide a higher quality product at a lower overall cost.

Barrier Caps and Closures

Milacron Co-injection multi-layer packaging technology has been developed to produce one-piece barrier caps and closures. These caps, when used as closures on multi-layer containers, provide even better product freshness and shelf life than previously possible.

In addition, molders of these caps can realize substantial cost savings since the barrier closure is produced in a single molding operation. Traditional barrier caps are typically made up of two or more pieces, including a plastic cap and a seal. Milacron Co-injection technology eliminates the need for any secondary operation.

The Future

Research and development is a high priority at Milacron Co-injection. It has helped us turn what was once an unproven technology concept into the leading barrier technology used throughout the world for producing food and beverage packaging. We are always working on new applications for our technology. Contact us with your ideas – we can help turn them into reality!

Milacron Co-injection Advantages Over Glass

- Reduced weight
- Lower part costs
- No breakage

Milacron Co-injection Advantages Over Metal

- Reduced weight
- Lower part costs
- More modern aesthetics

Milacron Co-injection Advantages Over Thermoformed Plastic

- Faster line fill speeds
- Better part-to-part consistency
- Longer product shelf life
- Higher quality aesthetics
- Smaller carbon footprint

