



Micro-CAP™ Bags for Packaging Fresh Fruit and Produce.

Method and purpose of use:

Micro-CAP™ bags are polyethylene blend bags scientifically designed to prolong the shelf-life, improve the quality and increase the yield of fresh fruit and produce between harvest and consumption. Since fresh fruit and produce are living, breathing organisms the selection of a protective bag is critical as the unique respiration rate of each fruit or produce variety must be taken into account. Too much barrier and the plastic bag will “suffocate” the produce while a high transmission rate bag (or no bag at all) will allow the produce to ripen past its peak and spoil before reaching the consumer. By selecting bags with just the right transmission rate, however, it is possible to slow the respiration of fruit and produce by modifying the atmosphere inside the bag. The lower respiration rate has the affect of delaying the ripening process, reducing spoilage, improving quality and extending the shelf-life. Depending upon the type of fruit or produce and the post harvest handling and storage conditions, shelf-life is often doubled or tripled with a Micro-CAP™ bag as compared to storage in ambient air or in a bag that allows free air flow.

The benefits of using Micro-CAP™ bags to the grower, processor, retailer and consumer include:

- Increased market access (exports) because product can be shipped longer distances and still meet consumer’s quality standards upon arrival.
- Use of lower cost shipping methods i.e. land or sea vs. air.
- Lower shipping weights through the elimination of ice (broccoli can be shipped iceless for example).
- Sell fruits at higher prices by holding past the end of the season.
- Reduced over packing to meet required net weights because Micro-CAP™ bags reduce moisture loss from evaporation.
- Reduced customer claims for spoiled or over ripe product.

Fortunately, PPC Industries has been extruding and manufacturing produce packaging for more than 10 years and can recommend the right material for all types of fruit and produce packaging. Manufactured using patented technology, Micro-CAP™ bags are unique in that they have laser micro-perforations (holes smaller than the diameter of a human hair) strategically placed on the bag to maintain just the right atmosphere inside the package. Micro-CAP™ bags are available in a variety of sizes and can be placed one per shipping carton as a box liner or packed multiple bags per carton. Bags can be closed using a variety of heat sealers or manually with a wire tie or rubber band.

Examples of produce and fruit that can benefit from packaging in Micro-CAP™ bags include:

Produce:	Fruit:
• Asparagus	• Blueberries
• Broccoli Crowns and Florets	• Cherries
• Cauliflower Crowns and Florets	• Plums
• Green Beans	• Nectarines
• Green Onions	• Pears
• Fresh Herbs	• Red Grapes
• Sugar Snap Peas	• Apples
• Cabbage	• Cantaloupes & Melons

For the correct bag recommendations, lead times and pricing contact Jim Pugh at PPC Industries in Pleasant Prairie, WI. (262)-947-0900 X45 or email at jim.pugh@ppcind.com. Not just packaging: PPC Industries has service and support to assist with processing and handling audits, recommend and perform packaging studies and perform technical research.

Company Background:

PPC Industries Inc. is a leading extruder and converter of plastic films, bags and tubing for food, medical and industrial packaging. In business since 1949, the company's headquarters and main manufacturing facilities are located 45 miles North of Chicago in Pleasant Prairie, WI. In addition, PPC Industries has a second manufacturing plant near San Jose, Costa Rica. The Midwest location is ideally suited to servicing customers in the 48 contiguous states and Canada while the Costa Rican operation ships materials to customers in Central and South America and the Caribbean. The company has annual sales revenues of \$75 million and its' customer base includes many name brand consumer and institutional food processors as well as major manufacturers of medical devices and suppliers to the automotive industry.