

Packaging Smarts

Advice for better, smarter, more cost-effective packaging decisions

by Tom McClure

Gas Flushing - Is It Your MAP to Success?

Gas Flushing - also called Modified Atmosphere Packaging (MAP) is a commonly used method of extending the shelf life of perishable products. This process replaces some of the oxygen in the package with other gasses - typically Nitrogen or Carbon Dioxide. Used in conjunction with the right barrier film, gas flushing can improve the shelf life of the product, and maintain its freshest taste, texture, and appearance.

The Science of Gas Flushing

The shelf life of perishable products is limited by the chemical effect of atmospheric oxygen and the growth of aerobic spoilage micro organisms. Individually and together, these cause changes in odor, flavor, color, and texture in food products. These changes can be delayed by replacing the ambient air in the package with a single gas or mixture of gasses that retard the growth of the micro-organisms and bacteria. Normal air is 21% Oxygen, 78% Nitrogen, and less than 0.1% Carbon Dioxide. Oxygen helps the micro-organisms and bacteria grow. So by replacing Oxygen with Nitrogen, shelf life can be extended. Depending on product characteristics, the barrier qualities of the packaging film, and other conditions, shelf life of bakery product can be extended by 5 to 20 days.

The Mechanics of Gas Flushing

Gas flushing is achieved through the use of a nozzle and metering system that forces the gas mixture into the package, replacing the ambient air. This occurs just prior to the bag being sealed.

Maintaining the effects of gas flushing, once the package is sealed, depends on the use of a barrier film that will prevent loss of the gasses, and entry of outside air.

Barrington Packaging Systems Group can help you extend your shelf life two ways - with machines and with barrier films. All of our packaging machines - Flow Wrappers, Vertical Baggers, Mini-Baggers, and Cup Sealers are available with gas flushing capability. We can also help you find the right packaging film or bag to prevent losing gas from within the package and keep the outside air out.

So call Barrington today at (888) 814-7999 and let us help you turn your "stales" into sales!