

Absorbing New Growth for Films

• by **Huston Keith** ●●●●●●●●●●

Oxygen absorber sachets are used widely in Japan for perishable foods and medicines, exceeding 2 billion units and \$300 million, according to some estimates.

A new study called *Oxygen Absorbers: Hit or Hype?*, published by B R G Townsend, of Mount Olive, New Jersey has examined the potential for these absorbers of North America. The use of embedded oxygen absorbers in flexible packages is expected to grow 80 percent annually through 2005, exceeding 400 million packages. This growth is the result of increased desire for higher product quality and exciting new technologies that embed absorbers in films to eliminate sachets and reduce the overall cost of adding this feature.

As their incomes increase, consumers increasingly seek fresher, better tasting foods. Although modern evacuation equipment can often evacuate oxygen to 500 parts per million, many foods are so oxygen sensitive that oxygen content below this level can cause off flavors and loss of color. Many foods, particularly bakery products, entrap oxygen. Even high barrier plastic packaging allows transmission of oxygen at slight, but potentially damaging, levels.

While much attention is focused on the huge potential for beer and juice bottles, flexible packaging offers considerable opportunity. A major converter is quietly supplying absorber films to a processed meat company and is expected to announce their use soon for a prepared food. The military uses absorber laminations from Cadillac to provide three-year shelf life for bread using technology developed by B P Amoco and now offered by Ciba.

Absorbers have been slowly adopted in flexible packages for several reasons. First, sachets are nearly as costly as the package itself. Consumer goods companies fear potential liability if a consumer accidentally ingests the contents of a sachet, although it merely tastes bad and is non-toxic. Placement in a package requires a separate step, and failure to do so may lead to product loss.

Early embedded absorbers in films were not clear or generated odors. However new technologies outlined in this report eliminate these disadvantages. A joint development by Chevron Phillips and Cryovac is very clear and odor-free. Other promising technologies include MXD6-Cobalt from Crown Cork & Seal and Continental PET and DarEVAL from Darex and EVALCA.

Embedded absorbers show especially strong growth in three market areas: processed meats, prepared meals and jerky. Thinly sliced meats are especially susceptible to flavor and color loss. Embedded oxygen absorbers offer a way to

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overcome extremely short shelf lives that plague processor attempts to offer freshly prepared chilled meals. While jerky is already a major absorber user, embedded absorbers offer cost and operational advantages. So absorbers are not just for beer and juice. Flexible films with absorbers offer for major growth and profit opportunities for converters.

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