

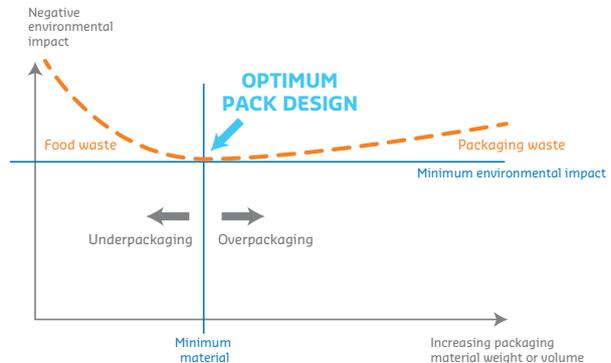
Optimised packaging for liquids?

EVAL™ EVOH
for Bag-in-Box



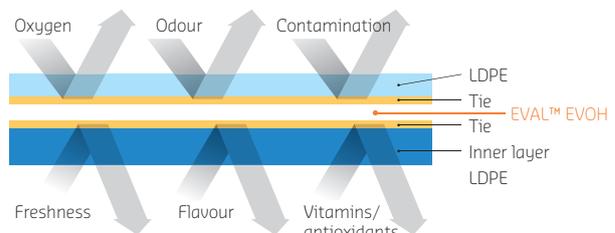
Less (weight) means more when packaging liquids

The role of packaging is to make sure that the value inside reaches the consumer, with all its freshness and quality intact. The challenge for liquids is to provide both structure and barrier protection (thus avoiding food waste) without increasing the packaging weight that makes processing and distribution less efficient. Barrier Bag-in-Box packaging provides an excellent balance between function and weight, reducing the environmental impact of liquid packaging at all stages of the product life cycle. While wine, juice, sauce, soup and other food packaging are the most obvious applications, it is also suitable for pharmaceuticals, chemicals and any other sensitive liquid materials.



Renewable paperboard for structure with less environmental impact

As the name suggests, the Bag-in-Box is composed of two parts. The outer paperboard box offers basic physical protection and can be made from renewable resources, helping to optimize distribution with its practical unbreakable shape and light weight. This can sharply reduce environmental impact compared to traditional materials like glass or metal, but does not provide the product with the required barrier protection.

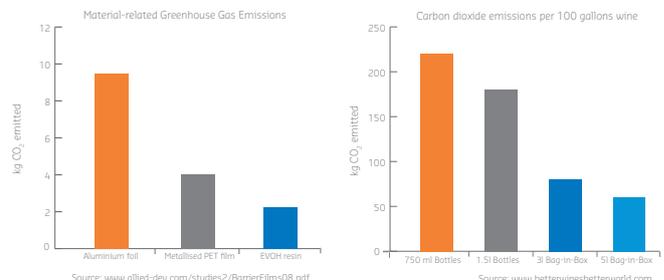


Reliable and safely recoverable barrier plastic liners for performance

Plastic liners inside the box contain the liquid, with a thin layer of EVAL™ providing the gas, aroma and solvent barrier to the entire structure. Unlike rigid containers, the inner liner collapses as the contents are dispersed, avoiding oxygen ingress and prolonging freshness of the product even after the package has been opened.



With 10,000x the oxygen barrier of LDPE, only a very thin layer of EVAL™ in a coextruded sandwich structure is necessary. EVAL™ barrier performance does not require metallization, allowing the bag to be transparent and compatible with metal detectors during processing. As an all plastic structure, it avoids flex-crack and pinhole formation during processing and shipment, providing reliable barrier properties throughout the life time of the package. EVAL™ also serves as a proven barrier against MOSH/MOAH and other contaminants, typically present in the recycled paperboard used for distribution or even the box itself.



Recycling and safe energy recovery

At end of life, the bag and box can be easily separated, with each part going to its own recycling stream, or together for safe energy recovery without metal residues. After prolonging shelf life and avoiding food waste, the small amounts of EVAL™ in the structure will not disrupt plastic recycling streams, and emit only small amounts of water vapour and CO₂ during energy recovery.