



Your ability to make the best packaging decisions to meet your sustainability goals is incomplete without metrics that compare solutions in a side-by-side view. Can you compare the environmental impact of one package to another? Can you measure the life cycle of a package throughout its entire life?

The answer to these questions is: YES. How? Through an LCA study.

At Admiral Packaging, we are proud to offer a Life Cycle Analysis (LCA) study as a part of our **GreenVantage** initiative. An LCA study is designed to quantify the environmental impact of sustainable packaging solutions, and provides a holistic and impactful report that is customized to our clients.



What's the Benefit to Doing an LCA Study?

Consumers want sustainable packaging solutions.

But what does sustainable packaging really mean?

As members of the Sustainable Packaging Coalition (SPC), we engage with other industry experts in a membership-based collaborative to share best practices and advance the business case to make packaging more sustainable. We use the SPC definition of sustainable packaging (below) as a guide and vision to strive toward through continuous improvement and as new materials and technologies emerge.

Sustainable Packaging:

- Is beneficial, safe & healthy for individuals and communities throughout its life cycle.
- Meets market criteria for performance and cost.
- Is sourced, manufactured, transported, and recycled using renewable energy.

- Optimizes the use of renewable or recycled source materials.
- · Is manufactured using clean production technologies and best practices.
- Is made from materials healthy throughout the life cycle.
- Is physically designed to optimize materials and energy.
- Is effectively recovered and utilized in biological and/or industrial closed loop cycles.

WHAT CAN BE LEARNED FROM AN LCA STUDY?

An LCA study can positively impact your company's bottom line. An LCA study can help you:

- · Find the gaps in your sustainability initiatives.
- Design a solution tailored to your sustainability goals.
- Make data driven sustainable packaging decisions.
- · Quantify environmental impacts of your product packaging.
- · Create efficiencies and potential cost savings through rightsizing.
- · Demonstrate your brand's sustainability commitment to your customers.

Every sustainable packaging project is different and there is no 'one size fits all' approach. An LCA study can determine the most sustainable packaging options for your company, your brand, and our planet.

Please Send Me A Case Study

HOW IS A LIFE CYCLE ANALYSIS STUDY CONDUCTED?

An LCA study is an assessment and a tool that gives you the ability to make better and more informed sustainable packaging decisions.

From the time that raw materials are produced to the time that a package is at the end of its useful life, all environmental impacts need to be considered. Incorporating specific data about packaging materials, sizes and volumes, we can evaluate the total environmental impacts of your current packaging format and compare it with other packaging solutions.

We recently conducted an LCA of a client's existing bag in box (BIB) packaging format and compared it to a variety of stand-up pouch (SUP) packaging

Evaluated Packaging Structures

HDPE BIB	High Density Polyethylene Bag in Box	
RR HDPE SUP	Recycle Ready HDPE Stand-up Pouch	
RR HDPE SUP 10% PCR	Recycle Ready HDPE Stand-up Pouch 10% Post-Consumer Recycled Content	
RR HDPE SUP 25% PCR	Recycle Ready HDPE Stand-up Pouch 25% Post-Consumer Recycled Content	
48g PET / 3mil LDPE	48 gauge Polyester 3mil Low Density Polyethylene	

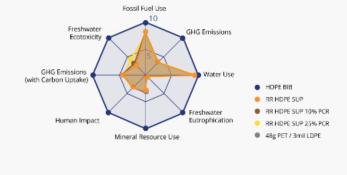
Using industry standard metrics and software, Admiral will conduct a comprehensive study of the full life cycle of current and prospective packaging solutions. Every stage of each package's life cycle is taken into consideration, from the time raw materials are produced to its end-of-life through recycling and waste streams. The study includes both upstream and downstream impacts of materials, processes, distribution, and disposal.

AN LCA STUDY PROVIDES METRICS THAT MATTER

Comparing BIB to SUP packaging solutions, we were able to provide the below metrics for each solution to our client allowing them to choose the best option to meet their sustainability goals.

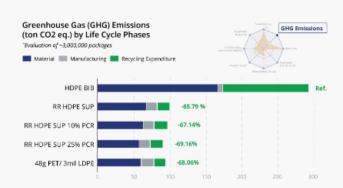
Admiral will provide you with a custom report that quantifies environmental impact in the following areas:

- + Fossil Fuel Use
- Greenhouse Gas Emissions (ton CO2 eq.) with and without carbon uptake
- + Water Use
- + Freshwater Eutrophication
- Mineral resource use
- + Human Impact
- ★ Freshwater Ecotoxicity
- Material Utilization

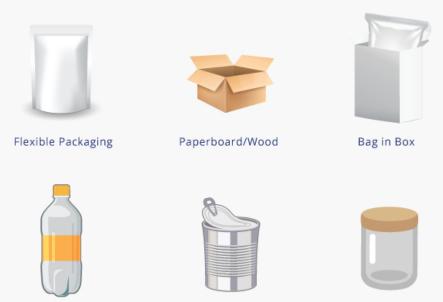


Total Environmental Impact 'Evaluation of -3.000,000 packages

Every LCA study is customizable and flexible. You can swap in and out different packaging types, sizes, and volume levels. You can change the variables as needed to calculate and consider multiple options.



Packaging Categories That Can be Studied Include...



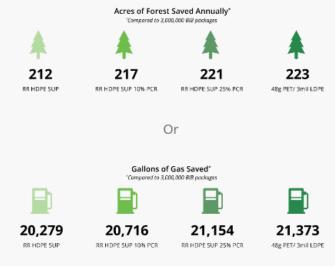
Aluminum

SUSTAINABLE PACKAGING SOLUTIONS

Rigid Materials/Plastics

Technology has led to significant advances in sustainable packaging. Using recycle ready materials, bio-based resins, post-consumer recycled content, or compostable materials have become valuable approaches, but the materials only tell part of the story of a package's life and its impact on our planet.

Some packaging materials, though recyclable, are difficult to recycle. Our streams are not all ready to process them, and many still end up in landfills despite the intentions of the product's companies and consumers. The amount of these items recycled is far from optimal. And for those that are recycled, some require a significant amount of energy to do so, which adds to environmental impact.



Glass

All environmental impacts need to be reflected to tell the true story of sustainability. Anytime we can eliminate a part of packaging — make it thinner, make it lighter — we make it better and more sustainable. In terms of holistic sustainability, flexible packaging is often the best option available.

At Admiral, we recognize that every product is unique, and we can develop a sustainable packaging strategy that is as unique as your brand. Using an innovative and quantitative approach, Admiral Packaging is helping brand owners define and meet their sustainability goals.

GET STARTED ON AN LCA STUDY TODAY

When it comes to sustainability, there are pros and cons with every decision. Your Admiral Packaging representative can help you make the most informed decisions about your packaging options though an LCA study. Take the first step to get started today.

First Name *	
Last Name *	
E-Mail *	
Phone Number *	
Company Name *	